

THE RACES OF EUROPE

A SOCIOLOGICAL STUDY

(Lowell Institute Lectures)

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CHAPTER XIII.

RUSSIA AND THE SLAVS.*

ON the east, the west, and the north, the boundaries of the Russian Empire are drawn with finality. Its territory ends where the land ends. The quarter of this empire which is comprised in Europe is defined with equal clearness on three sides and a half. Only along the line of contact with western Europe is debatable territory to be found. Even here a natural frontier runs for a long way on the crest of the Carpathian Mountains. To be sure, Galicia, for the moment, owes political allegiance to Austria-Hungary; but the Ruthenians, who constitute the major part of her population, are nowise distinguishable from the Russians, as we shall soon see. This leaves merely the two extremes of the Baltic-Black Sea frontier in question. The indefiniteness of the southern end of this line, from the Carpathians down, is one cause of that Russian itch for the control of the Bosphorus which no number of international conventions can assuage. The Danube could never form a real boundary; a great river like that is rather a uni-

* To a number of eminent anthropologists I am especially indebted for assistance in the collection of original Slavic materials used as the basis of this chapter. Among these should be especially mentioned with grateful recognition of their invaluable aid: Prof. D. N. Anutschin, president of the Society of Friends of Natural Science, Ethnology, and Anthropology in the Imperial University at Moscow; Prof. A. Taranetzki, of the Imperial Military Medical Academy, president of the Anthropological Society at St. Petersburg; Prof. Lubor Niederle, of Prague; Dr. Adam Zakrewski, chief of the Statistical Bureau at Warsaw; Dr. Talko-Hryncewicz, now in Transbaikal, Siberia; Dr. Wl. Olechnowicz, of Lublin; Dr. H. Matiegka, of Prague; and Prof. N. N. Kharuzin, of St. Petersburg. In the translation of the Slavic monographs I have been aided by Robert Sprague Hall, Esq., of the Suffolk bar, and Dr. Leo Wiener, of Harvard University.

fying factor in the life of nations than otherwise. Hence the great problems of the Balkan Peninsula. From the Carpathians north to the Baltic Sea, likewise, no geographical line of demarcation can be traced with surety. No water shed worthy of the name between the Dnieper and Vistula exists, although the waters of the one run east and the other west not far from the present boundary of Poland and Russia. The former country possesses no sharply defined area of characterization. The State of Texas has as clear a topographical title to independent political life. The partition of Poland was in a measure a direct result of geographical circumstances; and these have condemned this unhappy country, despite the devoted patriotism of her people, to a nondescript political existence in the future. By language the Poles are affiliated with Russia, not Germany; but in religion they are Occidental rather than Byzantine. Thus Poland stands to-day, padded with millions of politically inert Jews, as a buffer between Russia and Teutonism. It is a case not unlike that of Alsace-Lorraine. In both instances the absolute inflexibility of physical environment as a factor in political life is exemplified.

From the Carpathian Mountains, where, as we have said, Russia naturally begins, a vast plain stretches away north and east to the Arctic Ocean and to the confines of Asia; an expanse of territory in Europe eleven times as large as France.* It is not limited to Europe alone. Precisely the same formation, save for a slight interruption at the Ural Mountains, extends on across Asia, clear to the Pacific Ocean. European Russia, only one quarter the size of Siberia, is, however, the only part of immediate interest to us here. Nowhere in all its vast expanse is there an elevation worthy the name mountain. Even the most rugged portion, the Valdai Hills in southern Novgorod, are barely one thousand feet high; they are more like a table-land than a geological uplift. Across this boundless plain, the last part of Europe to emerge from the sea, sluggishly meander some of the longest rivers on the globe. Some conception of the flatness of the country may be gained from

* Leroy-Beaulieu, 1881-89, gives a superb description of the country. Its simple geology is shown by map in Petermann, xli, 1895, No. 6.

the statement that the projected new canal to connect the Baltic and Black Seas can be made available for navigation by the largest vessels from end to end by the construction of only two locks.

Whatever its local character, be it great peat swamps or barren steppe, the impression of the country is ever the same. Monotony in immensity; an endless uniformity of geographical environment, hardly to be equalled in any country inhabited by European peoples. Thus is the geographical environment of the Russian people determined in its first important respect. Their territory offers no obstacle whatever to expansion in any direction; the great rivers, navigable for thousands of miles, are, in fact, a distinct invitation to such migrations. On the other hand, this plain surface and the great rivers offer the same advantages to the foreigner as to the native; there is a complete absence of those natural barriers behind which a people may seek shelter from the incursions of others. The only natural protection which the region offers is in its dense forests and swamps. These, however, unlike mountains, offer no variety of conditions or natural products; they afford no stimulation to advance in culture; they retard civilization in the act of protecting it; they are better fitted to afford refuge to an exiled people than to encourage progress in a nascent one.

The second factor in determining a geographical area of characterization is its relative fertility. As we have observed before, this invites or discourages the movement of populations, in armies or in peaceful migration, just as much as the configuration of the surface makes this an easy or difficult matter. Judged by this second criterion, the territory of European Russia varies considerably. Leroy-Beaulieu divides it into three strips from north to south. The half lying north of a line from Kiev to Kazan (see map facing page 348), constituting the forest zone, is light soiled; it varies from heavy forest on the southern edge to the stunted growth of the arctic plains. South of the forest belt—south of a line, that is, from Kiev to Kazan—lies the prairie country. This is the flattest of all; over a territory several times the size of France, a hill

of three hundred and fifty feet elevation is unknown. This prairie or woodless strip is of surpassing fertility—the so-called Black Mould belt, just south of the forests, rivalling the basin of the Mississippi in its natural richness of soil. From this the country gradually becomes less and less fertile with the decreasing rainfall, as we go south. This brings us at last to the third region, that of the barren steppes, or saline deserts, which centre about the Caspian Sea. These are found also less extensively north of the Crimean Peninsula, as far west as the lower Dnieper. Their major part lies south and east of the Don River. As Leroy-Beaulieu observes, the real boundary between Europe and Asia, viewed not cartographically but in respect of culture and anthropology, lies not at the Ural River and Mountains at all, where most of our geographies place it. Sedentary, civilized, racial Europe, roughly speaking, ends at a line, shown on our map, up the Don from its mouth to the knee of the Volga, thence up the latter and away to the northeast. This brings us to Asia, with its terrific extremes of continental climate, with its barren steppes, its slit-eyed Mongols, and its nomadic and imperfect culture.

Over this great territory population is very unevenly scattered. It conforms strictly in its density to the possibilities for support offered by the environment. The forest zone, with its thin soil and long winters, is well-nigh saturated with a population of fifteen to the square mile. Across the Black Mould strip population rises to a respectable European figure of sixty or even sometimes seventy-five to the square mile. An area about twice the size of France offers every advantage for the pursuit of agriculture. From this it falls to the figure of about two to the mile in the great Caspian depression, once the bed of an inland sea. The great aggregation of population is, of course, about the historic centres, Moscow and Kiev. The latter is the expression of matchless advantages of soil and climate, while Moscow is rather the centre of an industrial population. Its commercial advantages are no less marked, lying as it does just between the head waters of the western rivers and the great water way to Kazan and the east down the course of the Volga. Novgorod, former centre of

Russian civilization when fugitive in the forests of the north, at the time of the Mongol invasions, now is of little relative importance; and St. Petersburg, surrounded by Finnic swamps, is of course merely the artificial creation of an absolute monarch. With great rapidity the population is retracing its steps in this century, expanding toward the east and south. It is moving away from Europe. The marshes and swamps which lie all along the Baltic Sea and the German frontier offer no inducement in that direction. Western Russia is indeed but scantily populated for the same reason. This fact, together with the intermission of Poland, has isolated the Russians as a people. A population about twice that of the United States has been left to evolve its individuality in complete separation from the rest of Europe. From the Carpathians to the Ural chain on the east, and to the Caucasus on the south, this vigorous branch of the European races has expanded. It surely lags behind the rest of Europe in culture, as it has always done. But the fate of the Slav, lying on the outskirts of cultural or little Europe, has always been to bear the brunt of the barbarian Asiatic onslaughts. Such a task of guarding the "marches" of Europe, has not been borne without leaving a distinct impress upon the entire civilization of the country. The task before us is to inquire as to the original physical nature of this great nation; and then to investigate as to whether effects, analogous to those upon culture, have been produced by the peculiar geographical location and experience of Russia in the past.

A word must be said, before we proceed to the physical anthropology of Russia, as to the languages which are spoken there. The true Russians form about one half the population of the European portion of the country; the rest are Letto-Lithuanians, of whom we shall speak in a moment, Poles, Jews, Finns, and Mongols, with a sprinkling of Germans. The true Russians are divided into three groups of very unequal size.* These are said to differ not only in language,

* Rittich, 1878 b, has mapped their distribution in minute detail. His final work of 1885 is a model of cartographical completeness. Talko-Hryncewicz, 1893 and 1894, gives detailed maps of linguistic boundaries also. Velytchko, 1897, is the most recent.

but in temperament as well. About fifty of the seventy-odd millions of them, known as Great Russians, occupy the entire centre, north, and east of the country. These are the "Muscovites," their historic centre being in the ancient capital city of Moscow. Next in numbers come the people of Little Russia, or Ukraine, who, as our maps designate, inhabit the governments of the southwest, up against Galicia. They in turn centre politically in Kiev, covering a wedge-shaped territory, with its point lying to the east in Kharkov and Voronesh. The Cossacks, who extend down around the Sea of Azof into the Kuban, are linguistically Little Russians also. The third group, known as the White Russians, only four million souls in number, is found in the four governments shown on our map, extending from Poland up and around Lithuania. The White Russian territory is flat, swampy, and heavily forested, in strong contrast to the fertile, open Black Mould belt of Little Russia. In topography and in the meagreness of its soil, White Russia is akin to the sandy Baltic provinces from Lithuania north. Linguistically, the White and Great Russians are closely allied; the dialect of the Little Russians is considerably differentiated from them both. This is probably due to the Tatar invasions from the east across middle Russia. In face of these the Great Russians withdrew toward Moscow; the White Russians took refuge in their inhospitable swamps and forests; while the population of the Ukraine was left to itself at the south. We shall not attempt to discuss the question as to which of these represents the purest Russian. Bearing in mind the constant migration of the Great Russians across Mongolian and Finnic territory, and the inviting character of the Ukraine; one is disposed at once to adjudge with Leroy-Beaulieu that, of the three tribes, the White Russian in his forests and swamps, far removed from Oriental barbarian influences, "is certainly the one whose blood is purest." Whether this is borne out by purely anthropological testimony we shall see later.

Entirely distinct from the Slavs in language is the Letto-Lithuanian people, which, to the number of three million or more, occupies the territory between the White Russians and

the Baltic Sea extending down into northern Prussia.* Their speech, in the comparative isolation of this inhospitable region—an isolation which made them the last people in Europe to accept Christianity—is the most archaic member of the great Aryan or inflectional family. Standing between Slavic and Teutonic, it is more primitive than either. Three tribes or peoples of them coexist here: Letts, Jmouds or Samogitians, and Lithuanians proper, as shown on our map. Contact with the Finnic-speaking peoples north of them—Esths, Livs, Tchouds, and Vods—has modified the purity of the Lettic speech considerably.† These Finns, in turn, speak a language like that of the Magyars in Hungary, and the Basques, which is not European at all. It is similar in structure to the primitive languages of Asia and of the aborigines of America. It represents a transitional stage of linguistic evolution, through which the Aryan family has probably passed in earlier times. But the language of the Letto-Lithuanians, while primitive in many respects, bears no relation structurally to the Finnic; it is as properly Aryan as the speech of the Slavs.

The perfect monotony and uniformity of environment of the Russian people is most clearly expressed anthropologically in their head form. Our results are shown graphically, it is believed for the first time, by the accompanying map of cephalic index.‡ Bearing in mind that the Poles and Letto-Lithua-

* Müschner and Virchow, 1891, have studied these Prussians.

† The Livonian speech is now extinct. Stieda, Correspondenzblatt, 1878, p. 126, states that in 1846 only twenty-two people still spoke it.

‡ Our data for this map may be found mainly in the original and excellent compilation of Niederle, 1896 a, pp. 54–57. Additional material of great value, especially from unpublished sources, is given in Deniker, 1897 and 1898 a; while his announced work, *in extenso* (1898 b), promises to give the most notable results. It will be a contribution unsurpassed in comprehensiveness. We had, prior to the knowledge of these, independently collected data from the original sources, published in L'Anthropologie, vii, 1896, pp. 513–525; but these later authorities agree so perfectly with our own observations, that reference to them is sufficient. We can only add certain unpublished data on the Magyars from Dr. Janko, of Buda-Pesth; Talko-Hryncewicz's (1897) recent observations in Podolia; Vorob'ef on the population of Riazan; N. N. Kharuzin on Esth-

nians along the Baltic Sea are not Russians properly, and excluding, of course, the Tatars of the Crimea, a moment's consideration of our map shows at once a great similarity of head form prevailing all over Europe from the Carpathian Mountains east and north. The cephalic index oscillates but two or three points about a centre of 82. This is about the head form of the northwestern French; appreciably broader, that is to say, than the standard for the Anglo-Saxon peoples. In places the breadth of head in Russia increases, especially among the Polesians isolated in the marshes of Pinsk and along the swamps of the Pripet River. These people are supposed to be infused with Polish blood, which may account for it,* as the southeastern Poles are known to be quite brachycephalic. At other times, as in southern Smolensk, the index falls to 80.† Our widest range of variation in Russia is about five units. Compare this with our former results

land, 1894, etc. In addition, in all that concerns Bohemia and its vicinity, we have had the benefit through the courtesy of Dr. Matiegka, of Prague, of unpublished maps, for comparison with our own.

On the whole, owing especially to the zeal of the younger school of Slavic anthropologists—by which we mean those who work from simple measurements on a large number of people rather than detailed descriptions of a few skulls in the laboratory—during the last five years, the main facts are perfectly well established. It remains to settle many points of detail, especially among the Hungarians and southern Slavs, but it is not likely that serious modification of the scheme will be necessary in Russia, at all events. Anutchin, Zograf, Talko-Hryncewicz, and their fellows have laid a solid foundation for future investigators.

* Talko-Hryncewicz, 1894, p. 159, on the anomalous position of the Polesians. Rittich, 1878 b, divides them dialectically between White and Little Russians. Talko-Hryncewicz, 1893, p. 133, and 1894, p. 172, gives his observations on head form. The seriation points to a strong brachycephaly.

The student of Slavic ethnology should carefully distinguish these Polesians from a number of other peoples of similar name. Thus there are also, besides the true Poles, the Podolians in the south Russian government of that name; the Podlachians, inhabiting a small district in the government of Grodno on the Polish frontier; and, finally, the Podhalians in the Carpathian Mountains. These last are best described by Lebon, 1881.

† Deniker asserts an index of 80.8 in southern Volhynia and of 86 in southern Kiev; but I am unable to confirm it by adequate data.

for western Europe. In France, less than half the size of this portion of the Russian territory covered by our map, the cephalic index runs from 78 to 88. In Germany the limits are about the same; while in Italy, only one eighteenth the size of European Russia, the head form changes from an index of 75 in Sardinia to one of 89 in the Alps of Piedmont. These are almost the extremes of long- and broad-headedness presented by the human species; the Russian type is about midway between the two.

One cause of this unparalleled extension of a uniform type, measured by the proportions of the head—a variability, notwithstanding the size of the country, only about one third of that in the restricted countries of western Europe—is not far to seek. It lies in the monotony of the Russian territory, which we have emphasized above. Once more are we confronted with an example of the close relation which exists between man and the soil on which he lives. A variety of human types is the natural accompaniment of diversity in physical environment. Intermixture and comparative purity of race may coexist side by side. Switzerland and the Tyrol offer us violent contrasts of this sort. Russia, devoid of all obstacles in the way of fusion, presents a great mean or average type, about halfway between the two limits of variation of which the European races elsewhere can boast. But pass beyond the foothills of the Caucasus, and behold the change! A Babel of languages—no less than sixty-eight dialects, in fact—and half as many physical types, of all complexions, all head forms, and all sizes. Truly it seems to be a law that mountains are generators of physical individuality, while the plains are fatal to it.

The population of Russia is not alone made up of Russians. In a preceding paragraph we have expressly excluded the population of the Baltic provinces. For the Letto-Lithuanians are not Slavs, as we have already observed, and of course the Finnic peoples, Esths, Tchouds, and Vods, are still more distinct. Our map at once brings the peculiar head form of these groups into strong relief. All along the frontier of Germany, and away up to Finland, a strong tendency to

long-headedness is manifested. This contrast is exemplified in our portraits distributed through this chapter. A narrow head generally is accompanied by a rather long and narrow face; our Mongol types, with their very round bullet heads, are characteristically broad and squarish-faced. This is partially due to the prominence of the cheek bones. It is this latter characteristic of our American aborigines which gives them their peculiar Mongol aspect. I have observed the very broad face to be one of the most persistent traits in the cross-breeds. Dr. Boas has proved it statistically. Even a trace of Indian blood will often cause this peculiarity. Now, the Russians express their relative broad-headedness, as compared with the Letto-Lithuanians, in the relatively squarish form of their faces.* Our portraits make this difference apparent at once.

The head form and facial proportions of the purest of the Letto-Lithuanians, it will be observed, approximate quite closely to our Anglo-Saxon model. The Russians impress the English traveller as being quite squarish-faced and heavy-featured for this reason. The British Isles, as we have shown, manifest a cephalic index of about 78. This is, as one would expect, the type of the primitive Anglo-Saxons. It appears all through northern and western Germany. Its main centre of dispersion is in the Scandinavian Peninsula, just across the narrow inland sea. The query at once suggests itself as to the origin of this similar long-headedness on the Baltic coast in Russia. If the eastern Prussians have been proved to be Slavonized Teutons in type, why not assume with equal surety that the western Poles are Slavs, Teutonized away from their original characteristics? Action and reaction in anthropology, as in physics, must always be equal and opposite in effect. Only thus can we account for the increased long-headedness in parts of Poland. And if it be Teutonic influence in this province, where shall we draw the line as we follow

* Talko-Hryncewicz, 1893, p. 169. Majer and Kopernicki, 1885, p. 59, show the round broad face of the Poles in Galicia, as compared with the Ruthenians. The Carpathian mountaineers seem to be anomalously long-faced. (Kopernicki, 1889, p. 49; and Lebon, 1881, p. 233.)

up the Baltic coast, over one language after another? Is there a Teutonic cross in the Lithuanians? If so, why not in Letts as well? And how about Esths and Tchouds? We shall see.

South and west of the Carpathian Mountains a second great division of the Slavs exists. This includes the Poles, Czechs, Slovaks, Moravians; and—divided from them by the intrusive Magyars, who speak a Finnic language—the Slovenes, Serbo-Croatians, and Bosnians in the south. This *congeries* of scattered Slavic nationalities seem to be, for some reason, politically adrift in Europe.* The Bulgars and Roumanians belong to a still different class. For the former, while Slavic in speech, is quite distinct in physical derivation; and the Roumanians, in origin probably allied to the Slavs, speak a corrupted Romance language. Matters are indeed becoming mixed as we approach the Balkan Peninsula. This entire group of southwestern Slavs is characterized by a very prevalent broad-headedness, much more marked than among the Russians, as Weisbach has been proving for twenty-five years.† Their brachycephaly is directly conjoined to that of the Alpine highlands in the Tyrol, where we pass beyond the limits of Slavdom, and enter the territory once occupied by the Celts. Our map of head form points to a general broad-headedness over all the present Austro-Hungarian Empire, from which a spur seems to extend over into Little Russia, becoming lost in an expanse of longer-headedness in the plains beyond. All the mountainous regions are still characterized by brachycephaly; it is a repetition of the law which holds good all over western Europe. This brachycephaly is tempered only in those districts like Austria, where we know both from language and history that the Teutonic influence has been strong. Other physical traits will corroborate this deduction shortly. Yet these Austrian Germans are to-day only distantly related to the blond Scandinavian Germans along the Baltic. They resemble the Bavarians and Swabians, who are, as we know, a cross between the blond Teutonic race and a thick-set, broad-headed Alpine one. Leaving aside for the moment the long-

* Cf. page 411, *supra*.

† Our Bibliography gives a complete list of all his papers.

headed strip on the Black Sea, which will demand special consideration, we can not resist the final inference that all this part of Europe, now inhabited by the southern Slavs, is fundamentally Alpine in racial type; although eroded in places by Teutonic influences from the north, and disturbed by the volcanic irruption of the Finnic Magyars and the Turkish Bulgarians.

The word Russian is undoubtedly derived from a root meaning red. Our adjective rufous, and the name Ruthenian, applied to the inhabitants of Galicia, bear the same signification. The name is aptly applied: for the Russians, wherever found, are characterized by a distinct tendency toward what we would term a reddish blondness. Yantchuk, in the government of Minsk, in White Russia, found almost half his peasants to have hair of this shade.* It is not a real red. It might be called either a light chestnut, a dark flaxen, or an auburn tint. This shade of hair, combined with what Talko-Hryncewicz terms a "beer-coloured" eye, is the centre from which variation up or down occurs. This range of variation is very considerable. It seems to conform to the general law for all Europe, to which we have already called attention in our chapter on the subject. Brunetness increases regularly from north to south. In Russia the population also manifests a distinct tendency toward darker hair and eyes from west to east. The Baltic Sea is the centre of distribution for blondness, here as in Germany. The relations are well illustrated by the following table; statistics offer merely a scientific confirmation of the facts of common observation.

Percentage of types (hair, eyes, and skin combined).	476. Letto- Lithuanians.	961. White Russians.	252. Podolians.	2,610. Little Russians.	188. Ruthenian mountaineers.	22,682. Great Russians.
Blond.....	67	57	55	33	28	40
Mixed	28	31	29	46	32	40
Brunet	5	11	18	20	40	20

These figures show that the Letto-Lithuanians are the lightest people in the group. They are characterized most

* 1890 b, col. 69.

frequently by a blue eye, and light hair which rivals the Swedish and Norwegian in its purity.* Two thirds of these Baltic peoples appear as pure blonds. The Poles are nearly as light, apparently. Majer and Kopernicki,† in fact, found more blond types among adults even than Virchow did among his German school children; and this, too, despite the fact that the blondness of the latter would surely decrease with growth. Next to the Poles and Letto-Lithuanians come the White Russians and the people of Podolia (see map facing page 340), with still a majority of blond types. The Great Russians are somewhat darker, but even they are appreciably lighter in complexion than the Little Russians in the southern governments. The latter—the Ukrainians—are still blue or lightish in eye, but betray a strong predisposition for dark-brown hair. This latter is here as common as the light brown.‡ The “beer-coloured” eye, in most frequent combination with really dark hair, brings us to the culmination of brunetness among the Galicians in the Carpathian Mountains. These Gorali, as our table indicates, in contrast with the Letto-Lithuanians, show the clear brunet at last outweighing the blond. The name “black Russians,” applied to these mountaineers to distinguish them from the Ruthenians, or “red Russians,” of the plains of Galicia, appears to be deserved. They seem to con-

* Talko-Hryncewicz is the only observer who has consistently applied a uniform system of observation to various localities. This table, arranged from his works of 1893, p. 112; 1894, p. 168; and 1897, p. 279, presents the best summary of his conclusions. He has covered Lithuania, White and Little Russia; adding results from Majer and Kopernicki, 1877, p. 112, and 1885, p. 43, and Kopernicki, 1889, as to the Ruthenians and Poles in Galicia. We add, although not strictly comparable, Zograf's (1892 a, p. 165) results on the Great Russians. More definite comparisons, yielding, however, entirely parallel results, may be drawn from the colour of the hair alone. Thus we may include the Poles and even the southern Slavs as far as Bulgaria. To the tables in Talko-Hryncewicz's papers may then be directly added Weisbach's observations over a large field. Niederle, 1896 a, pp. 60 *et seq.*, has done this most satisfactorily.

† 1877, pp. 90 and 112, and 1885, p. 34. Elkind's results (1896, col. 261) also show a marked blondness along the Vistula, though not quite so pronounced as in Galicia. Cf. also Schimmer, 1884, p. ix.

‡ Tschubinsky, 1878, p. 364, confirms these results.

tain twice as many clear brunet types as the Ukrainians, who are in Russia accounted dark. Lebon⁽⁸¹⁾ has proved that the Podhalians in these mountains are a local variety, being considerably lighter. He found nearly one third of them blond, while seventy per cent of them had light eyes. Elkind * found one third of the Poles along the Vistula to have blue eyes and dark-red hair. The light type is less frequent, however, than in Galicia, as Talko-Hryncewicz † proved. Beneath all these variations, however, underlies the rufous, or rather auburn, tendency of which we have spoken. It distinguishes the Russian blondness from that of all other Europeans. We shall seek a cause for it when we come to consider the Finns and other pre-Slavic inhabitants of the country.

In this connection we can not resist calling attention to the bearing of this testimony upon Poesche's⁽⁷⁸⁾ celebrated theory that the original centre of dispersion of the blond Aryans (?) lay in the great Rokitno swamps about Pinsk and along the Pripet in White Russia. We have seen that these people are indeed blond. Mainof ‡ it was whose testimony to this effect gave Poesche his cue. Since we have proved how much less blond these White Russians are than their neighbours toward the Baltic, it would seem as if we had effectually disposed of Poesche's theory at the same time.

In stature the Russians are of medium height, but they betray the same susceptibility to the influences of environment as other Europeans. Our map herewith illustrates this clearly. This investigation of upward of two million recruits, by the eminent anthropologist Anutchin, shows a considerable variation according to the fertility of the country. Thus in the northern half, above Moscow and Kazan, the adult males are two inches shorter than in the Ukraine about Kiev, which lies in the heart of the Black Mould belt. The difference between White and Little Russians is due to the same cause. Other influences besides physical environment are, however, at work, beyond question. This is especially the case in Poland. This unhappy country is the adopted fatherland of millions of Jews.

* 1896, col. 261.

† 1890, p. 29.

‡ Cong. int. des sciences géographiques, Paris, 1878, p. 269.

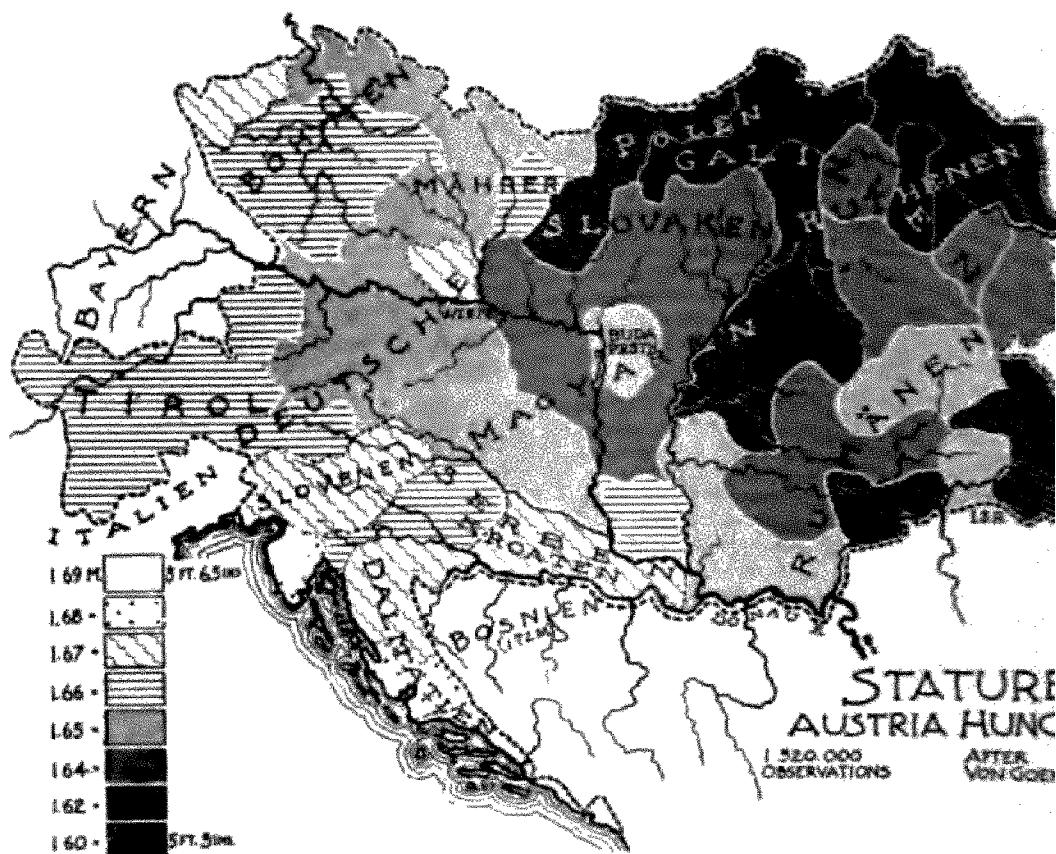
There are almost more here than in all the rest of Europe put together. These Jews are one of the most stunted peoples in Europe. In how far this is the result of centuries of oppression, and in what degree it is an inherent ethnic trait, we need not stop to consider. It is an indisputably proved fact. The presence of this horde of Jews, often outnumbering the native Poles especially in the towns, is largely accountable for the short stature shown by our map. This does not exonerate the Poles by any means from the charge of relative diminutiveness.* The degree in which they are surpassed by their Slavic neighbours on the other side is shown by our map on page 350. Comparisons are facilitated by the uniformity of tints upon the two maps. Yet even here in Austria-Hungary the shortness of the Poles and Ruthenians, which together form the population of Galicia, may be partly attributable to the large contingent of Jews.

The clearest example of stature as an unmitigated ethnic trait, hereditary and persistent, is shown in the eastern half of Austria-Hungary (map on next page). Notice the lightness of shading among all the Germans (*Deutsche*) in Austria, in the Tyrol, and in the northwestern corner of Bohemia (*Böhmen*). These are just the districts where Teutonic infiltration from the north has been historically proved since early times. We have already mentioned it in our study of the head form. The German-speaking Austrians, then, are by nature and not by acquisition, an inch or two taller than many of the Slavic peoples subject to their political domination. It is the same phenomenon already so familiar to us in the case of the relatively gigantic Burgundian peasantry in France to-day; in the tallness of the people of Lombardy; and, above all, in the Teutonized eastern half of the British Isles. This latter example comes directly home to us, because we in America owe a large measure of our surpassing stature to the same ethnic cause. Never has a physical trait shown so surprising a persistency as in the height of these Teutonic peoples.

Just here a difficulty confronts us—one which no anthropologist has satisfactorily explained. Our second map shows

* Talko-Hryncewicz, 1895, p. 264. See our chapter on Jews.

a very tall population among the southern Slavs, the Slovenes, Serbo-Croatians, and Bosnians, contrasted with the short Poles, Ruthenians, and Slovaks in the northeast. This can not historically be traced to a Teutonic ancestry. Anthropologically it is even less probable, because these southern Slavs are all very dark in hair and eye, being in this respect as in head form the polar extreme from the Teutons of the north. A distinct subcentre of giantism, inexplicable but established



NOTE.—*Cf.* Appendix F.

beyond all doubt, exists just east of the Adriatic Sea. Its influence radiates through the Slovenes over into northeastern Italy. We find indication of it in the Rhætian parts of Switzerland. Deniker, in his recent classification of the anthropological types of Europe, carries it even further, under the definite name of the Adriatic or Dinaric race.* Who can affirm

* 1898 a, with map. We emphasized the same fact in our general stature map of Europe; see page 97 *supra*.

that the tallness of the Tyrolese, who in their mountainous habitat, despite the depressing influence of their environment, surpass the Swiss, the Bavarians, the Austrians, and the Italians, may not possibly be due to a double ethnic source? At just this point in the Tyrol the Teutonic wave of tall stature from the north and the Adriatic one from the south come together. Thus, an exception to the law that, other things equal, the populations of mountains are unfavourably affected in stature by their environment may possibly be explained.

Turning back to our map of stature in Russia, facing page 348, we observe a distinctly lighter shading—that is to say, a taller stature along the coast of the Baltic Sea. This is merged in the mediocre stature of the Great Russians, a little east of Novgorod. Although unfortunately our map does not give the data for Finland, we know that a similar superiority of stature extends all across this province. All the Finns in this part of Russia are very tall. G. Retzius ("⁷⁰"), Bonsdorff,* Hjelt ("⁷²"), Elisyeef ("⁸⁷"), and all observers agree in this.† An average height not a whit less than that of the pure Scandinavians in Norway and Sweden is proved. It lessens toward the north in contact with the Lapps, most stunted of men, at an average of only five feet for adult males. It decreases on the east among the Karelian Finns, falling rapidly to the Russian average. Bear in mind that in no other part of northern Europe, save in Scandinavia just across the Baltic Sea, is an average stature anywhere near that of the Finns to be found: that a cross with the Swedes in consequence is inadequate as an explanation for this tallness; that wherever there is contact with the Slav—precisely as in Austria-Hungary, where, as we have seen, an ethnic trait ran up against Slavdom—the bodily height falls to mediocrity: and draw the only inference possible both from geography and physical anthropology. We shall deal with the philologists later.

Summarizing our results thus far, we find two physical

* Cited by Topinard, *Éléments*, p. 494.

† On the Esths, Grube, 1878; A. N. Kharuzin, 1894. Waldhauer, 1879, on the Livs; Waeber, 1879, on the Letts. Kollmann, 1881-'83, gives a fine *résumé* of this work.

types more or less clearly coexisting in the Russian people, and throughout all the Slavs, too, for that matter. One is tall, blondish, and long-headed; the other is brachycephalic, darker-complexioned, and of medium height. The relative proportions of each vary greatly from one region to another. Among Lithuanians and Poles, the former is more noticeable; in the Ukraine the other type becomes more frequent; the Great Russians stand between the two; while among the southern Slavs the blond, long-headed variety entirely disappears.* Not only do the relative proportions of these component types vary from one region to another. Distinct differences in the several social strata of the same locality appear. The tall dolichocephalic blonds are more characteristic of the upper classes as a rule, so far as the matter has been examined.† Our results for western Europe are entirely harmonious with this tendency. And, thirdly, it is curious to note that the relative proportions of these two ethnic types have changed entirely since prehistoric times. This point is of so great significance that we must examine it a bit more in detail.

Nowhere else in Europe is the complete submergence of an old race by an intrusive one more clear than in the Slavic portion of Europe. Bogdanof, founder of Russian archæology, devoted his entire life to proof of this fact in his own country.‡ The first indications of this submerged aboriginal population were given by crania from tumuli, which are scattered all over Russia from the Carpathians almost to the Ural chain, and even beyond in Siberia. These *Kurgans*, so called, are merely large mounds of earth from twenty to fifty feet high, sometimes single, sometimes arranged in series for

* Zograf, 1892 a, p. 173, describes these. Lebon, 1881, p. 233, finds the same two types in Podhalia.

† Olechnowicz, 1893, 1895 a, and 1897, has obtained some highly interesting results among the *petite noblesse* in Poland. Talko-Hryncewicz, 1897 b, confirms it.

‡ The facts yielded by his first investigation in 1867 have been confirmed by every observation since. We are fortunate in that a complete summary of his life work was given by himself at the International Congress of Anthropology at Moscow in 1892. Titles of all his monographs will be found in our Bibliography.

miles. They are not unlike the simpler relics of our own mound builders. The dead level of the country makes them in the open prairies often of great service to herdsmen in tending their flocks. These tumuli were found for the most part to date from the stone age; no implements or ornaments of metal were unearthed in them. The absence of weapons or utensils of war in them also denoted a peaceable folk.* The population must have been considerable, for these tumuli are simply innumerable. The men of this *Kurgan* period betrayed a notable homogeneity of type, even more uniform than that of the modern living population. The crania were almost invariably of a pure, long-headed variety; the cephalic indexes ranging as low as or lower than that of the purest living Teutonic peoples to-day. Remembering that the modern Russians are well up among the moderately broad-headed Europeans, it will be seen what this discovery implied. Nothing else was known save that this extinct people were very tall, considerably above the standard of the Russian mujik to-day, and it seemed as if their hair betrayed a tendency toward red.† The most obvious explanation, in view of the fact that Finnic place names occurred all over Russia, was that these tumuli were the remains of an extinct substratum of Finns, driven out or absorbed by the incoming Slavs. Their civilization, made known to us by Uvarof ('75), and more recently by Inostranzef ('82), was definitely connected with that of the Merian people, so called by the historians.‡

Soon a new and significant point began to be noted. While the range of this primitive long-headed people so different from the living Russians, was distinctly set on the north and east, no definite limits could be set to it toward the southwest. In the meanwhile Kopernicki and others, from 1875 on, began to find evidence of the same dolichocephalic stratum of popu-

* Kohn and Mehlis, 1879, ii, p. 111, compare them with the Reihengräber in this respect. Cf. Zaborowski, Bull. Soc. d'Anth., 1898, pp. 73-III.

† Niederle, 1896 a, p. 88. Minakoff, 1898, has investigated this more fully, asserting the reddish cast to be due to the degeneration of age.

‡ Bogdanof, 1893, p. 2, gives a full list of the authorities, Karamsine, Solovief, Beliaef, Hatzouk, etc.

lation, underlying all the Slavs in Podolia and Galicia.* Their track has been followed, entirely antedating the modern Slavs, down into Bohemia and Moravia, by Niederle † and Matiegka,‡ and as far as Bosnia; where, in the great discoveries at Glasinac,* the existence of this same aboriginal population was abundantly proved. On the west, Lissauer followed it across Prussia beyond the Vistula.|| Thus on every side it was traced to the limits of Slavdom, and found to underlie it throughout. The next step taken by the archæologists was to examine the graves of the early historic period. Bogdanof ^ investigated the ancient cemeteries at Moscow and elsewhere, and found that the brachycephaly of the living Russians in its present form is even more recent than history. Thus, while in the *Kurgan* stone age three fourths of the skulls were dolichocephalic, in the Slav period from the ninth to the thirteenth century only one half of them were of this form, and in purely modern cemeteries the proportion was ten per cent less even than this. Added confirmation of this proof of the extreme recency of the Russian broad-headedness was almost the last service rendered to science by the late lamented Professor Zograf.◊ In Bohemia Matiegka has done the same, showing that even as late as the sixth to the twelfth centuries the Czechs were less extremely broad-headed than to-day.† Two explanations were suggested for this widespread phenomenon. Bogdanof and a few others asserted that civilization implied an increased broad-headedness, and that a morphological change had taken place in the same people; while the majority of anthropologists found in it proof of an entire change of race since

* Kohn and Mehlis, 1879, give a complete *résumé* of Kopernicki's results in an excellent work which seems to be little known. See especially vol. ii, pp. 108–110, 152, 153.

† 1891 a, 1894 a, p. 277, and best of all in his masterly work of 1896 a, pp. 67–75, where he gives data for all Slavic countries in detail. His paper in French, at the Moscow Congress of 1892, gives a mere outline of the results obtained. Palliardi, 1894, deals with Moravia also.

‡ 1892 b and 1894 a.

* Weisbach, 1895 a, p. 206; 1897 b, p. 575; also L'Anth., v, p. 567.

|| 1874–78.

^ 1879 b, and 1880 g.

◊ 1896, p. 52.

† 1891, pp. 133, 134.

the earliest times.* The first explanation, even granting that the brachycephalic races as a rule are endowed with a greater cranial capacity than the long-headed ones, could hardly be accorded a warm reception in any of the Anglo-Saxon countries like our own. To relegate long-headedness to an inferior cultural position would result not only in damning the entire Teutonic race, but that one also which produced the early Semitic, Greek, and Roman civilizations. No explanation for the recency of broad-headedness in the Slavic countries is, then, tenable for a moment, save that the brachycephalic contingent is a newcomer in the land.

Which of these two elements in the population, which have contended so long for mastery among the people of this part of Europe, represents the primitive Slavic type? It is a delicate matter, by no means free from national prejudice. The Germans have always looked down upon their eastern neighbours, by reason of their backwardness in culture. Our ignoble word "slave," originally signifying the illustrious or renowned, is a product of this disdain in Europe of the Slav.† To find the primitive Slavic type, therefore, in that variety, which accords so completely with our pattern of the Teutonic race, is as disheartening to the Germans as for the Slavs themselves; it runs counter to their distrust of modern aggressive Teutonism. Even science is not free to violate the provisions of the Triple Alliance with impunity.

The most generally accepted theory among anthropologists as to the physical relationship of the Slavs, is that they were always, as the majority of them are to-day, of the same stock as the broad-headed Alpine (Celtic) race. This latter occupies, as we have seen, all the central part of western Europe. It predominates among the north Italians, the French in Auvergne and Savoy, and the Swiss. It prevails in the Tyrol and all across southern Germany, in Alsace-Lorraine, Württemberg, and Bavaria. The French anthropologists, especially Topinard, have emphasized the direct similarity in head

* *Vide p. 40 supra.*

† Consult Lefèvre, 1896 b, p. 351; Canon Taylor, *Words and Places*, p. 303, and Leroy-Beaulieu, 1893-'96, i, p. 97, on this.

form which exists between all these people and the Slavs. The name Celto-Slavic has been applied to broad-headed race by virtue of this fact.* It was a logical deduction from the first discovery of broad-headedness among the Slavs by A. Retzius ('43), von Baer ('60), and Weisbach ('64). The main objection to it came from the philologists, who found the Slavic languages much nearer the Teutonic than the Celtic branch.† This Celto-Slavic theory, affirmed by the French anthropologists mainly on the ground of similarity of head form, is generally sustained by the Germans on the basis of their investigations of relative brunetness among school children. The Germans have consistently maintained the existence of a radical difference of origin between themselves and the Slavs. The Slavic portions of Germany, such as Mecklenburg, Posen, and Brandenburg, as we have shown in an earlier chapter, are certainly darker in the colour of hair and eyes than the purely Teutonic ones, like Hanover and Schleswig-Holstein. Schimmer ‡ has especially called attention to the contrast in Bohemia. The Czechs and the Germans have always kept distinct from one another. The relative brunetness of the former is very marked. Children of Czech parentage betray about twice the tendency to brunetness of hair and eyes of the pupils in the purely German schools. The Poles are almost the lightest of all the Slavs. Their contrast with the Czechs in Austria-Hungary is also very marked. Yet even they, blondest of the Slavs, are in Posen and Silesia, as Virchow's ('88b) maps prove, relatively much darker than the Prussians.

Another trait which many of the German anthropologists, notably Kollmann ('82b), hold to be Slavic, is the gray or greenish-gray eye, in contradistinction to the light blue of the pure

* Sergi, 1898 a, chapter vi, has perhaps best expressed and proved this relationship. Hovelacque and Hervé, 1887, p. 564, assert that no Slavic type really exists in fact.

† Krek, 1887, is the leading authority. Niederle, 1896 a, pp. 13 to 32, gives a fine review of all the linguistic data. Schrader, 1890, p. 56, outlines all these theories. Bopp, Zeuss, Grimm, Fick, and Schleicher all insist upon the affinity of the Slav and the Teuton.

‡ 1884, pp. 16 and 19.

Teuton or the distinct brown and black of southern Europe. This colour, so frequent among the Russians, is very common all through the Alpine highlands.* It corroborates the testimony of the head form as to the affinity of the Alpine (Celtic) type and the Slav; unless we agree with Kollmann and Virchow that this grayness of eye is merely the result of a cross between the blond and brunet varieties.† In this sense it is merely a neutral or intermediate characteristic. At all events, even denying validity to the witness of the gray eye, plenty of evidence remains to show that the modern Slavic population of eastern Europe is, in the same latitude, more inclined to brunetness than the Teuton. The presence among the Russian people themselves of a medium-statured, dark-complexioned, and broad-headed majority is acknowledged by all. That this represents the original Slavic stock is certainly the most logical direct inference. It is the opinion—tacitly at least—accepted by most of the English writers.‡ Direct evidence as to the former coloration of the Slavs is very scanty. The testimony of the old travellers like Ibrahim ibn Jacub as to the black hair and beards of the Czechs, contrasted with the Saxons, adduced by Dr. Beddoe* in favour of a dark Slavic origin, is contested by Niederle.|| No such unanimity of testimony as is found from Tacitus, Martial, and a host of other Latin writers as to the blondness of the Teutons can be adduced. On the whole, the chroniclers leave the matter as unsettled as ever. The only reliable testimony is that of the living populations of Slavic speech.

The native anthropologists are divided in theory as to the type of their Slavic ancestors. No one pretends to question the facts in the case; the divergence of opinion is merely as to which stratum of population, which region, or which social class of the two we have described, is entitled to claim the honoured title. Thus Anutchin,[▲] Taranetzki,[◊] Talko-Hrynce-

* Studer, 1880, p. 70.

† Ranke, *Der Mensch.*, ii, p. 253; also p. 267. Cf. Rhamm in *Globus*, lxxi, No. 20.

‡ Beddoe, 1893, p. 110, and Taylor, 1890, p. 104. * 1893, p. 70.

|| 1896 a, pp. 80–87, giving much historical testimony.

▲ 1893, pp. 279–281.

◊ 1884, pp. 63–65.

wicz,* Olechnowicz,† Kopernicki,‡ Pic,* Ikof,|| and Yantchuk ^ identify the modern broad-headed population as a Slavic invader of originally Finnic territory; while Bogdanof,◊ Zografs,‡ and especially Niederle,‡ represent the claims of the extinct *Kurgan* people to the honoured name of Slav. Leroy-Beaulieu seems to represent a popular tendency in favour of this latter view.‡ For our own part, we rather incline to agree with Matiegka that it is a question which the craniologists are not competent to settle.** That the Alpine (Celtic) racial type of western Europe is the best claimant for the honour seems to us to be the most logical inference, especially in the light of studies of the living aborigines of Russia, to which we must now turn.

Three ethnic elements are generally recognised as component parts of the Russian people—the Slav, the Finn, and the Mongol-Tatar. The last two lie linguistically outside the family of related peoples which we call Aryans, the only other non-Aryan language in Europe being the Basque.†† In any classification according to physical characteristics, we must, however, set aside all the evidences of language as untrustworthy. To admit them as a basis of classification would involve us at once in inextricable confusion.‡‡ These tribes have

* 1893, p. 171.

† 1893, p. 37; 1895, p. 70.

‡ Kohn and Mehlis, vol. ii, pp. 114, 153, and 164. In his 1869, p. 629, he asserts the Ruthenians to be nearest the original Slavic type.

* Athenæum, Prague, viii, p. 193.

|| 1890, col. 103.

△ 1890 a, col. 202.

◊ 1893, pp. 10 and 13.

‡ 1896, p. 63.

†† 1891 a, 1892 a, and especially in his positively brilliant 1896 a, pp. 50 *et seq.* Consult his answer to criticisms, 1891 b, and in Globus, vol. Ixxi, No. 24 also. His bibliography of the subject is superb.

‡ 1893-'96, vol. i, pp. 96 and 108.

** 1891, p. 152.

‡‡ Consult Chapter VIII.

‡‡ The errors of such a classification are well exemplified in Leroy-Beaulieu's otherwise excellent work, in which his aborigines are utterly confused in relationship. Rittich in all his work, and Keane, 1886, as well as in his Ethnology, 1896, pp. 303 *et seq.*, are equally at sea. Since the days of Nilsson and Prichard, the philologists have befogged the questions of physical descent. Niederle, 1896 a, in his appendix upon the subject, seems to be very confused. Cf. Topinard, 1878, p. 465.

all been more or less nomadic for ages in this great plain country; they have taken on and put off customs, language, and religion time and again, according to circumstances. The latter characteristic, religion, in fact, affords us a far better standard for ethnic classification than language; since the Finns have persisted in Christianity, the Turks and Tatars have held to Mohammedanism, and the Mongols proper to Buddhism, with a remarkable constancy. The varying proportions of barbarism in each group are well illustrated by this fact. For in race, as in religion, the Finns are truly indigenous to western Europe, the Tatar-Turks are Oriental, while the Mongols proper are Asiatic.

The evils incident to any linguistic classification of the aborigines in Russia are best illustrated by a comparison of the Lapps with the Livs, Esths, and Tchouds of the Baltic provinces; both groups alike speak Finnic languages; the philologists, therefore, from Castrén to Mikkola, class them as alike members of a Finnic "race," along with the Magyars or Hungarians, who are also Finnic in speech. Nothing could be more absurd than to assert a community of physical origin for the three. The Magyars, among the finest representatives of a west European type, are no more like the Lapps than the Australian bushmen; and the Baltic Finns are equally distinct. The Lapps, as our portraits at page 208 illustrate, are among the broadest-headed of men.* Their squat faces show it. In stature they are among the shortest of the human species. Virchow's † celebrated hypothesis that they are a "pathological race" seems excusable on this ground. Their hair and eyes are very dark brown, often black. Could any type of human beings be further removed from this than the Finns described to us by G. Retzius, Bonsdorff, Elisyeef, or Mainof? These latter Finns are among the tallest of men, with fair skin, flaxen or tow-coloured hair, and blue eyes. Turn to our map at page 362. It shows us among the Esths on the Baltic coast, through the Cheremiss on the Volga, and clear beyond

* Sommier, 1886; Kelsief, 1886; N. N. Kharuzin, 1890; Garson, 1886 a, and others have studied them in detail.

† 1875, a and b.

the Ural Mountains among Ostiaks and Voguls in Siberia, a long-headedness not a whit less pronounced than throughout Teutonic Germany. The contrast of tints on our map corresponds to a radical contrast of physical type.

The same utter confusion of racial—that is to say, of somatological—relations, incident to a linguistic division of the Finns, appears at once in any like attempt to classify the Turkish-speaking branch of the Asiatic peoples. For the Chouvaches, just across the Volga from the Cheremiss,* not in any important respect to be distinguished from them physically, as our map shows, have by chance adopted the language and religion of the neighbouring Tatars. It is as absurd to class them with the latter as Turks by race, as to jumble the broad-headed and brunet Samoyeds, who are quite like the Lapps, with the Zyrians just south of them; † or to confuse the Tatars as a class with the Kirghez. Comparison of our portraits of each will manifest this at once. The Tatars of the Crimea—whether, as the historians assert, because of early Gothic influence or otherwise—are in many cases entirely European. To class them as Mongols because being closely massed, somewhat isolated, and possessed of glorious traditions from the past, they have preserved their Asiatic speech, is a travesty upon science.

Turning to the Russian aborigines, then, with an eye single to their purely physical characteristics, we may relegate them to two groups, sharply distinguished in isolation, but intermixed along their lines of contact. Our map of cephalic index facing page 362 will roughly make the division clear. Our several pages of portraits (portraits, pp. 346 and 364) will strengthen the contrast. The first group is distinctly long-headed, with an index as low as 79 or 80, among the Livs, Esths, Cheremiss, Chouvaches, and Vogul-Ostiaks in Siberia.

* Nikolski, 1897.

† Keane calls the Samoyeds Finns, Ethnology, p. 305. To be sure they speak Finnic, but are really Mongols. Mainof is clearest, perhaps, in classing them as "black Finns." On the Samoyeds consult Szombathy in Mitt. Anth. Ges., Wien, xvi, pp. 25-34, and Virchow, Verh. Anth. Ges., ix, 1879, pp. 330-346.

These are all more or less clearly blond, with a distinctly rufous tendency, even among the extreme eastern tribes of Voguls and Ostiaks.* Sometimes, as among the Votiaks, whom Dr. Beddoe † inclines to identify with the Budini of the Greeks because of their red hair, we find this trait very marked, especially in the beard. It seems to be somewhat less pronounced along the Baltic, where the Livs, Esths, and Tchouds shade off imperceptibly into the pure blond Letto-Lithuanians. Here we discover the source of that peculiar reddish blondness of the modern Russians of which we have spoken, for a wide-spread admixture of blood in the Slav from this stock is recognised by all. In this first type we recognise the Finn, using the linguistic term guardedly, with the express reservation that not every tribe of Finnic speech is of this racial ancestry. These are the tall people who in the Eddas are called Jötuns, or giants. The word Tchoud applied by the Slavs to the Finns also means a giant.‡ Mythology confirms our anthropological deductions.

Our second physical type of the Russian aborigines is the polar extreme from this long-headed, red-blond one. We may follow it on our map by the black tints, indicating a prevalent broad-headedness. This is best exemplified at the two extremes of Russia, in the Lapp at the northwest and the Kalmuck and Kirghez hordes of the Caspian steppes. The Samoyeds are merely a continuation of the Lapp type toward Asia along the arctic.* These people correspond closely to what we popularly regard as Mongolian. They are all dark or black haired, with swarthy skins; they are peculiarly beardless (portraits, pp. 358 and 208). With the round face, bullet head, high cheek bones, squint eyes, and lank hair, they constitute

* Sommier, 1887, p. 104; 1888. The Ostiaks and Voguls are, according to Anutchin, 1893, the original Voguls, who were settled in Perm a few centuries ago. Their emigration across the Urals is of comparatively recent date. Cf. also Vámbéry, 1885, p. 62; and Zaborowski, Bull. Soc. d'Anth., 1898, pp. 73-111.

† 1893, p. 42. Cf. Topinard, Anthropology, p. 465.

‡ Taylor, 1868, p. 249.

* Zograf's work on the Samoyeds is summarized in *Revue d'Anth.*, série 2, iv, p. 296; Bogdanof's at *ibid.*, p. 117.

an unmistakable type.* We may provisionally call it Mongol for want of a better word, but it must not be confused with the Turk or Tatar, which is nothing of the sort. Many of these people speak Finnic languages, so that in a sense it is still proper to class them as Finns. If so, they should be distinguished from the other variety. Mainof does this best by classing the two as "light" and "black" Finns respectively. This second group is not characterized by any peculiarity of stature, as the Finns seem to possess. From Yavorski's data † we note an extreme variability in this trait in both Mongols and Finns. The western Finns show a strong tendency to a very tall stature; the pure Mongols are also rather above medium height; but many of both stocks are exceedingly degenerate in this respect. The Lapps and Samoyeds could not but be stunted by their environment; ‡ and even the Ostiaks, Permiaks, Votiaks, and Cheremiss, driven from the valleys where alone the Russians can win a subsistence, to the sterile uplands on the upper river courses, have certainly been starved into relative diminutiveness. It is along the line of these tribes just named, and above all among the Bashkirs,* that we discover a variety of mongrels, compounded of Finn and Mongol, with a strong infusion of Tatar through the whole. Kazan, at the elbow of the Volga, is truly a meeting place of the tribes. The intermingling of strains of blood, of religions, customs, and of linguistic stocks may be observed here at a maximum. Especially among the Mordvins, widely disseminated in little groups, not aggregated in solid communities, as among Cheremiss or Chouvaches, has the infusion of Tatar traits taken place. An interesting fact in this ethnic intermixture is the extreme insidiousness of the Mongolian features. This is a fertile source of confusion of the Finn and the Asiatic tribes. Many long-headed, red-

* On the Kalmucks and Mongols, consult Ivanovski, 1893 and 1896; Metchnikoff, 1878; Schendrikovski, 1894; Deniker, 1883; Chantre, 1885-87, iv, p. 250; and also Hovelacque, *Études de Linguistique*, 1878, pp. 271 *et seq.*

† 1897, p. 196.

‡ Yavorski, p. 196; N. N. Kharuzin, 1890 a, p. 155.

* Weissenberg, 1892; Sommier, 1881; Nazarof, 1890.

blonds, as among the Ostiaks and Zyrians, who are surely Finnic at bottom, superficially resemble the Mongols in cast of countenance. Perhaps our dolichocephalic Kalmuck, depicted at page 358, is of some such mixed origin. His features are ultra-Mongolic. His head form is quite foreign to that racial type.* In the case of the Basques, we have explained how unreliable these facial features are as a test of physical descent; for, being distinctive and noticeable, they are immediately subject to the disturbing influences of artificial selection. They may thus wander far from their original type, becoming part of the local ideal of physical beauty prevalent among a primitive people. Only in this way can we explain the almond eyes, flat noses, and high cheek bones of tribes which by their blondness and head form betray unmistakably a Finnic descent. This combination of Mongol features and Finnic or dolichocephalic head form, occurs sporadically throughout western Asia, especially near the Himalayas, where the two extreme human types, both of face and head, are in close juxtaposition. Where intermixture has taken place, the resultant is often a curious blend between the Hindu and the Mongol.†

One objection to our ascription of the name Finn to a long-headed type is bound to arise. We must meet it squarely. If the Finns are of this stock, why is all Finland relatively so broad-headed as our map (facing page 362) makes it appear? Here is the largest single aggregation of Finnic-speaking people; ought we not to judge of the original type from their characteristics in this region? By no means, for Finland is the

* Cf. portraits of Ostiaks in *Jour. Anth. Inst.*, 1894-'95. Talko-Hryncewicz, 1893, p. 171, remarks upon the effect of a Mongol cross to broaden the face, as among the Permiaks, Votiaks, and Esths. Bogdanov, 1893, p. 10, remarks upon this broad face of even the Kurgans of early times in eastern Russia. Cf. Beddoe, 1893, p. 40; Niederle, 1896 a, p. 147; Keane, 1896, p. 306.

† Cf. Ujfalvy, *Les Aryens, etc.*, 1896, pp. 398-408, on the interpretation of cephalic index among Mongol peoples. His curious thesis that the Mongols are originally dolichocephalic, because such head forms, as among the Ladakis, are often conjoined with Mongolic facial traits, seems without foundation.

refuge of a great body of aborigines driven forth from Great Russia by the advent of the Slavs, just as also all along the isolated peninsulas of the Baltic and in the Valdai Hills north of Tver. But in Finland, in contradistinction to these other places of refuge, the Finns were crowded in together against the Lapps. Especially in the north we see clear evidence of inter-mixture. The Russian Lapps are very much less broad-headed than their pure Scandinavian fellows, by reason of such a cross.* Can we deny, contrariwise, that a similar rise of index in the case of the Finns must have ensued for the same reason? The Karels, further removed from the Lapps, are somewhat longer-headed; the Baltic Finns, being quite free from their influence, are much more so. Moreover, all along the southwest coast of Finland the heads are much longer. Observations upon twenty-eight Finns in the lumber camps of Wisconsin by my friend Mr. David L. Wing, yielded an average index of only 78.9, while thirty-nine Swedes were two units lower. Granting that the infusion of Swedish blood all along this Baltic coast must be reckoned as a factor, a distinct tendency to such long-headedness among the Finns appears. Coupled with the long-headedness of the Cheremiss, Vogul-Ostiaks, and others, and especially the tendency of the mongrel Bashkirs to dolichocephaly as we leave the Caspian Mongol influence and approach the Ural Mountains, our affirmation of an original long-headedness of this type seems to be justified.

In assigning a relationship to these various peoples, let us avoid the gratuitous assumption that because a people speak a primitive type of language they are necessarily barbarians. Great injustice to an important constituent in the Russian people will inevitably result. It may often happen to be true; but in Russia, although both Finns and Tatars have clung to a Ural-Altaic agglutinative language, they are not all deficient in mentality. Nothing could be more contrary to fact. Neither Basques nor Magyars are barbarians. The Finnic languages, while a trifle clumsier perhaps, are powerful and rich in many respects. In culture also there are Finns

* Kelsief, 1886, and N. N. Kharuzin, 1890 a and b.

and Finns. To be sure, the whole eastern branch along the Volga and in Asia are truly aboriginal in civilization, as in the case of the Chouvaches and Votiaks. Expelled from all the lands worth cultivation, even as in the case of the Voguls and Ostiaks driven out of Europe altogether, it is a wonder that they are not less civilized than we find them. On the other hand, the Baltic Finns in their general standard of life, intellectually and morally, compare very favourably with the Russian "mujik." Helsingfors, capital of Finland, is one of the finest cities in Russia. Its university ranks high among those of Europe. Finnic scholars, poets, and musicians there have been of note. Once for all, then, let us fully disabuse ourselves of the notion that there is anything ignoble in a Finnish ancestry. Had Virchow and De Quatrefages fully done so, much of the acerbity in their celebrated controversy over the Finnic origin of the Prussians would have been avoided.*

If our original Finns are proved to be long-headed blonds, oftentimes very tall; if the Letto-Lithuanians, contrasted with the Russian Slavs, betray the same physical tendencies; if, just across the Baltic Sea, the main centre of this peculiar racial combination is surely located in Scandinavia; and, finally, if in every direction from the Baltic Sea, whether east across Russia or south into Germany, these traits vanish into the broader-headed, darker-complexioned, medium-statured, and stocky Alpine (Celtic?) type; how can we longer deny that Finns, Letto-Lithuanians, and Teutons are all offshoots from the same trunk? A direct physical relationship between the three, referring them all to a so-called Nordic race, is confirmed by the very latest and most competent authority; † and this in absolute independence of our own conclusions.

* Cf. page 219 *supra*.

† Consult Deniker's map of the races of Europe, 1898 a, reproduced in our Appendix D. Talko-Hryncewicz, 1893, p. 170, emphasizes the similarity of Letto-Lithuanians and Finns. Canon Taylor, 1888, in his brilliant revival of Diefenbach's (1861) theory of Aryan evolution from a blond Finnic ancestry, arrives at precisely the same conclusion. Kohn and Mehlis, vol. ii, pp. 108 and 153, acknowledged the similarity of Kopernicki's Kurgan people and the Teutonic Reihengräber; as does Bogdanof, 1893, pp. 19-21 also.

If it be established by further investigation, our theory goes far to simplify the entire problem of the physical anthropology of Europe. It is not a new idea. Diefenbach⁽⁶¹⁾ and Europeaus⁽⁷⁵⁾ advanced it a generation ago on the basis of the then recent archæological discoveries of a long-headed, tall race in the tumuli of the stone age; although it never gained any acceptance at the time. A curious corollary of this theory is that De Quatrefages and Virchow, in their celebrated international controversy over the origin of the Prussians, were both partly in the right. Virchow resented the view of a Finnic origin of his people as an insult, because Lapps and Finns were then confused with one another, and he certainly was right in denying any affinity of Prussians with Lapps. De Quatrefages, in asserting that the Prussians were of Finnic ancestry, was equally in the right, if our theory be true; but he erred in supposing that this damned them as non-Teutonic. For us the Prussians, along with the Hanoverians and Scandinavians, are all at bottom Finnic. We would not stop here. We would agree absolutely with Europeaus in his further hypothesis—that these Finns of northern Europe are directly related with that primitive Mediterranean long-headed stock, sprung from the same root as the negro, which we have shown to underlie all the other races of Europe.* Its blondness is an acquired characteristic, due to the combined influences of climate and artificial or natural selection. From this centre in the north, invigorated by the conditions of its habitat, and speedily pressing upon the meagre subsistence afforded by Nature, this race has once again during the historic period retraced its steps far to the south, appearing among the other peoples of Europe as the politically dominant Teutonic race.†

The anthropological history of northeastern Europe is now clear. Leaving aside the question of the original centre of

* Cf. page 461 in this connection.

† See page 467 *infra*. This is in perfect accord with Sergi's most recent work in *Centralblatt für Anthropolgie*, 1898, p. 2; and with Niederle's conclusions (1896 a, p. 131; and especially in *Globus*, vol. lxxi, No. 24). Cf. Taylor, 1888, criticised in Schrader and Jevons, 1890, p. 104.

dispersion of the Slavic languages, generally placed somewhere along the upper Dnieper,* it would seem that the Slavs as a physical type penetrated Russia from the southwest, where they were physically an offshoot from the great Alpine race of central Europe. In so doing they forced a way in over a people primitive in culture, language, and physical type. This aboriginal substratum is represented to-day by the Finns, now scarcely to be found in purity, pushed aside into the nooks and corners by an intrusive people, possessed of a higher culture acquired in central Europe. Yet the Finn has not become extinct. His blood still flows in Russian veins, most notably in the Great and White Russian tribes. The former, in colonizing the great plain, has also been obliged to contend with the Asiatic barbarians pressing in from the east. Yet the impress of the Mongol-Tatar upon the physical type of the Great Russian, which constitutes the major part of the nation, has been relatively slight; for instead of amalgamation or absorption as with the Finn, elimination, or what Leroy-Beaulieu calls "secretion," has taken place in the case of the Mongol hordes.† They still remain intact in the steppes about the Caspian; the Tatars are banished to the eastern governments as well, save for those in the Crimea. The Asiatic influence has been perhaps more powerful in determining the Great Russian character than the physical type. A struggle for mastery of eastern Europe with the barbarians has made the great Russian more aggressive; vigour has to some degree developed at the expense of refinement. The result has been to generate a type well fitted to perform the arduous task of protecting the marches of Europe against barbarian onslaught, and at the same time capable of forcefully extending European culture over the aborigines of Asia.

* Niederle, 1896 a, p. 77; Beddoe, 1893, p. 35.

† *Op. cit.*, i, pp. 71, 82, and 109.

CHAPTER XIV.

THE JEWS AND SEMITES.*

SOCIAL solidarity, the clearest expression of which to-day is nationality, is the resultant of a multitude of factors. Foremost among these stand unity of language, a common heritage of tradition and belief, and the permanent occupation of a definite territory. The first two are largely psychological in essence. The third, a material circumstance, is necessary rather to insure the stability of the others than for its own sake; although, as we know, attachment to the soil may in itself become a positive factor in patriotism. Two European peoples alone are there, which, although landless, have succeeded, notwithstanding, in a maintenance of their social consciousness, almost at the level of nationality. Both Gypsies and Jews are men without a country.† Of these, the latter offer perhaps the more remarkable example, for the Gypsies have never disbanded tribally. They still wander about eastern Europe and Asia Minor in organized bands, after the fashion of the nomad peoples of the East. The Jews, on the

* In the preparation of this article I have to acknowledge the courtesy of Mr. Joseph Jacobs, of London, whose works in this line are accepted as an authority. In its illustration I have derived invaluable assistance from Dr. S. Weissenberg, of Elizabethgrad, Russia, and Dr. L. Bertholon, of Tunis. Both of these gentlemen have loaned me a large number of original photographs of types from their respective countries. Dr. Bertholon has also taken several especially for use in this way. The more general works upon which we have relied are: R. Andree, *Zur Volkskunde der Juden*, Bielefeld, 1881; A. Leroy-Beaulieu, *Les Juifs et l'Antisémitisme*, Paris, 3e éd. 1893; and C. Lombroso, *Gli Antisemitismo*, Torino, 1894.

† Freeman, 1877 c, offers an interesting discussion of this. He adds the Parsees to this category of landless peoples.

other hand, have maintained their solidarity in all parts of the earth, even in individual isolation one from another. They wander not gregariously in tribes, often not even in families. Their seed is scattered like the plant spores of which the botanists tell us; which, driven by wind or sea, independently travel thousands of miles before striking root or becoming fecund. True, the Jews bunch wherever possible. This is often a necessity imposed for self-preservation; but in their enforced migrations their associations must change kaleidoscopically from place to place. Not all has been said even yet of the unique achievement of this landless people. That the Jews have preserved their individuality despite all mutations of environment goes without saying. They have done more. They have accomplished this without absolute unity of language. Forced of necessity to adopt the speech of their immediate neighbours, they have been able either to preserve or to evolve a distinctive speech only where congregated in large numbers. In Spain and the Balkan states they make use of Spanish; in Russia and Poland they speak a corrupt German; and in the interior of Morocco, Arabic. Nevertheless, despite these discouragements of every kind, they still constitute a distinctive social unit wherever they chance to be.

This social individuality of the Jews is of a peculiar sort. Bereft of linguistic and geographical support, it could not be political. The nineteenth century, says Anatole Leroy-Beaulieu, is the age of nationality; meaning obviously territorial nationality, the product of contiguity, not birth. To this, he says, the Jew is indifferent, typifying still the Oriental tribal idea. As a result he is out of harmony with his environment. An element of dislike of a political nature, on the part of the Christian is added to the irreconcilability of religious belief. It has ever been the Aryan *versus* the Semite in religion throughout all history, as Renan has observed; and to-day it has also become the people *versus* the nation, as well as the Jew *versus* the Christian. Granted that this political dissonance is largely the fault of the Gentile, its existence must be acknowledged, nevertheless.

How has this remarkable result been achieved? How, be-

reft of two out of three of the essentials of nationality, has the Jew been enabled to perpetuate his social consciousness? Is the superior force of religion, perhaps abnormally developed, alone able to account for it all? Is it a case of compensatory development, analogous in the body to a loss of eyesight remedied through greater delicacy of finger touch? Or is there some hidden, some unsuspected factor, which has contributed to this result? We have elsewhere shown that a fourth element of social solidarity is sometimes, though rarely, found in a community of physical descent; that, in other words, to the cementing bonds of speech, tradition, belief, and contiguity, is added the element of physical brotherhood—that is to say, of race. Can it be that herein is a partial explanation of the social individuality of the Jewish people? It is a question for the scientist alone. Race, as we constantly maintain despite the abuses of the word, really is to be measured only by physical characteristics. The task before us is to apply the criteria of anthropological science, therefore, to the problems of Jewish derivation and descent. Only incidentally and as matters of contributory interest, shall we consider the views of the linguists, the archæologists, and the students of religious traditions.^{*} Our testimony is derived from those physical facts which alone are indicative of racial descent. To these the geographer may add the probabilities derived from present distribution in Europe. No more do we need to settle the primary racial facts. Further speculations concerning matters rather than men belong to the historian and the philologist.

The number and geographical distribution of the chosen people of Israel is of great significance in its bearing upon the question of their origin.* While, owing to their fluid

* Andree, 1881, pp. 194 *et seq.*, with tables appended; Jacobs, 1886 a, p. 24; and quite recently A. Leroy-Beaulieu, 1893, chapter i, are best on this. Tschubinsky, 1877, gives much detail at first hand on western Russia. In the Seventeenth Annual Report of the Anglo-Jewish Association, London, 1888, is a convenient census, together with a map of distribution for Europe. On America, no official data of any kind exist. The censuses have never attempted an enumeration of the Jews. Schimmer's results from a census of 1880 in Austria-Hungary are given in Statistische Monatsschrift, vii, pp. 489 *et seq.*

ubiquitousness, it is exceedingly difficult to enumerate them exactly, probability indicates that there are to-day, the world over, between eight and nine million Jews. Of these, six or seven million are inhabitants of Europe, the remainder being sparsely scattered over the whole earth, from one end to the other.

Their distribution in Europe, as our map opposite shows, is exceedingly uneven. Fully one half of these descendants of Jacob reside in Russia, there being four or five million Jews in that country alone. Austria-Hungary stands next in order, with two million-odd souls. After these two there is a wide gap. No other European country is comparable with them except it be Germany and Roumania with their six or seven hundred thousand each. The British Isles contain relatively few, possibly one hundred thousand, these being principally in London. They are very rare in Scotland and Ireland—only a thousand or fifteen hundred apiece. Holland contains also about a hundred thousand, half of them in the celebrated Ghetto at Amsterdam. Then follows France with eighty thousand more or less, and Italy with perhaps two thirds as many. From Scandinavia they have always been rigidly excluded; from Sweden till the beginning, and from Norway until nearly the middle, of this century. Spain, although we hear much of the Spanish Jew, contains practically no indigenous Israelites. It is estimated that there were once about a million there settled, but the persecutions of the fifteenth century drove them forth all over Europe, largely to the Balkan states and Africa. There are a good many along the Mediterranean shores of Africa, principally in Morocco and Tripoli. The number decreases as we approach Egypt and Palestine, the ancient centre of Jewish dispersion. As to America, it is estimated, although we know nothing certainly, that there are about half a million Jews scattered through our cities in the United States. New York city, according to the last census, contained about eighty thousand Poles and Russians, most of whom, it may be assumed, were Jews. But they have come since in ever-increasing numbers with the great exodus from Russia, at the rate of scores of thousands annually. A recent writer places their

present number in New York city at a quarter of a million. The British provinces, on the other hand, do not seem to offer great attractions; as late as 1870, for example, the census in Nova Scotia did not discover a solitary Jew.

A more suggestive index of the problems of Jewish distribution is offered in the ratio of the number of Jews to the entire population. This is directly illustrated by our map. To be sure this represents the situation twenty years ago, but no great change in relativity is to be suspected since that time. Even the wholesale exodus from Russia of recent years, has not yet drawn off any large proportion of its vast body of population. Inspection of our map shows that the relative frequency of Jews increases in proportion to the progressive darkening of the tints. This brings out with startling clearness, the reason for the recent anti-Semitic uprising in both Russia, Austria, and the German Empire. A specific "centre of gravity" of the Jewish people, as Leroy-Beaulieu puts it, is at once indicated in western Russia. The highest proportion, fifteen per cent more or less, appears, moreover, to be entirely restricted to the Polish provinces, with the sole exception of the government of Grodno. About this core lies a second zone, including the other west Russian governments, as well as the province of Galicia in the Austro-Hungarian Empire. Germany, as it appears, is sharply divided from its eastern neighbours, all along the political frontier. Not even its former Polish territory, Posen, is to-day relatively thickly settled with Jews. Hostile legislation it is, beyond a doubt, which so rigidly holds back the Jew from immigration along this line. *Anti-Semitismus* is not to-day, therefore, to any great extent an uprising against an existing evil; rather does it appear to be a protest against a future possibility. Germany shudders at the dark and threatening cloud of population of the most ignorant and wretched description which overhangs her eastern frontier. Berlin must not, they say, be allowed to become a new Jerusalem for the horde of Russian exiles. That also is our American problem. This great Polish swamp of miserable human beings, terrific in its proportions, threatens to drain itself off into our country as

well, unless we restrict its ingress. As along the German frontier, so also toward the east, it is curious to note how rapidly the percentage of Jews decreases as we pass over into Great Russia. The governments of St. Petersburg, Novgorod, and Moscow have no greater Jewish contingent of population than has France or Italy; their Jewish problem is far less difficult than that of our own country is bound to be in the future. This clearly defined eastern boundary of *Judenthum* is also the product of prohibitive legislation. The Jews are legally confined within certain provinces. A rigid law of settlement, intended to circumscribe their area of density closely, yields only to the persuasion of bribery. Not Russia, then, but southwestern Russia alone, is deeply concerned over the actual presence of this alien population. And it is the Jewish element in this small section of the country which constitutes such an industrial and social menace to the neighbouring empires of Germany and Austria. In the latter country the Jews seem to be increasing in numbers almost four times as rapidly as the native population.* The more elastic boundaries of Jewish density on the southeast, on the other hand, are indicative of the legislative tolerance which the Israelites there enjoy. Wherever the bars are lowered, there does this migratory human element at once expand.

The peculiar problems of Jewish distribution are only half realized until it is understood that, always and everywhere, the Israelites constitute pre-eminently the town populations.† They are not widely disseminated among the agricultural districts, but congregate in the commercial centres. It is an unalterable characteristic of this peculiar people. The Jew betrays an inherent dislike for violent manual or outdoor labour, as for physical exercise or exertion in any form. He prefers to live by brain, not brawn. Leroy-Beaulieu seems to consider this as an acquired characteristic due to mediæval prohibition of land ownership or to confinement within the Ghetto. To us it appears to be too constant a trait the world over, to

* Andree, *op. cit.*, p. 258.

† This is clearly shown by Schimmer in *Statistische Monatsschrift*, vii, pp. 489 *et seq.* See also Leroy-Beaulieu, i, p. 118; Andree, pp. 33 and 255.

justify such an hypothesis. Fully to appreciate, therefore, what the Jewish question is in Polish Russia, we must always bear this fact in mind. The result is that in many parts of Poland the Jews form an actual majority of the population in the towns. This is the danger for Germany also. Thus it is Berlin, not Prussia at large, which is threatened with an overload of Jews from the country on the east. This aggregation in urban centres becomes the more marked as the relative frequency for the whole country lessens. Thus in Saxony, which, being industrial is not a favourite Jewish centre, four fifths of all the Jewish residents are found in Dresden and Leipsic alone.* This is probably also the reason for the lessened frequency of Jews all through the Alpine highlands, especially in the Tyrol. These districts are so essentially agricultural that few footholds for the Jew are to be found.

A small secondary centre of Jewish aggregation appears upon our map to be manifested about Frankfort. It has a peculiar significance. The Hebrew settlers in the Rhenish cities date from the third century at least, having come there over the early trade routes from the Mediterranean. Germany being divided politically, and Russia interdicting them from 1110 A. D., a specific centre was established especially in Franconia, Frankfort being the focus of attraction. Then came the fearful persecutions all over Europe, attendant upon the religious fervour of the Crusades. The Polish kings, desiring to encourage the growth of their city populations, offered the rights of citizenship to all who would come, and an exodus in mass took place. They seem to have been welcomed, till the proportions of the movement became so great as to excite alarm. Its results appear upon our map. Thus we know that many of the Jews of Poland came to Russia as a troublesome legacy on the division of that kingdom. At the end of the sixteenth century but three German cities remained open to them—namely, Frankfort, Worms, and Furth.† Yet it was obviously impossible to uproot them entirely. To

* See also map in Kettler, 1880.

† J. C. Majer (1862, p. 355) ascribes the present shortness of stature in Fürth and parts of Franconia to this Jewish influence.

their persistence in this part of Germany is probably due the small secondary centre of Jewish distribution, which we have mentioned, indicated by the darker tint about Frankfort, and including Alsace-Lorraine. Here is a relative frequency not even exceeded by Posen, although we generally conceive of this former Polish province as especially saturated with Jews. It is the only vestige remaining to indicate what was at one time the main focus of Jewish population in Europe. It affords us a striking example of what legislation may accomplish ethnically, when supplemented, or rather aggravated, by religious and economic motives.

Does it accord with geographical probability to derive our large dark area of present Jewish aggregation entirely from the small secondary one about Frankfort, which, as we have just said, is the relic of a mediæval centre of gravity? The question is a crucial one for the alleged purity of the Russian Jew: for the longer his migrations over the face of the map, the greater his chance of ethnic intermixture.

(The original centre of Semitic origins linguistically has not yet been determined with any approach to certainty. The languages to be accounted for include Arabian, Hebrew, Syrian or Aramean, and the ancient Assyrian. Of these, the first is the only one now extant, spoken by the nomad Bedouins. Orientalists are not unanimous in their views.* Sayce, Schrader, and Sprenger say the family originated in central Arabia. Renan prefers a more northern focus. Guidi (¹⁷⁹), from comparison of the root words in its various members, traces it to Mesopotamia. Thus he finds a common root in all for "river," but various ones for "mountain." The original Semites, he also argues, must have dwelt near the sea, for a common root for this obtains. This would exclude Armenia. The absence of any common root for desert also eliminates Arabia, according to his view. But, on the other hand, how about Kremer's argument, based upon acquaintance with the camel, but not the ostrich? All this in any

* Guidi, 1879; Bertin, 1881; Goldstein, 1885, p. 650; Hommel, 1892; Schrader, 1890, p. 96; Brinton, 1890, p. 132; and Keane, 1896, p. 391, discuss it.

event, we observe, has to do with languages and not racial types. Few ancient remains have been found, owing to the widespread repugnance to embalming of the dead. The main problem for the somatologist is to have some clew as to whether the family is of Asiatic or African descent. So far as our data for living types are concerned, we get little comfort. Physical traits of the Arabs fully corroborate Brinton's and Jastrow's⁽⁹⁰⁾ hypothesis of African descent; but, on the other hand, many of the living Syrians of Semitic speech are, according to Chantre⁽⁹⁵⁾, as brachycephalic as the Armenians. This, as we shall see in our next chapter, would preclude such an African derivation. It seems most probable, in view of these facts, that the family of languages has spread since its origin over many widely variant racial groups. To identify the original one would be a difficult task.

A moot point among Jewish scholars is as to the extent of the exodus of their people from Germany into Poland. Bershadski has done much to show its real proportions in history. Talko-Hryncewicz * and Weissenberg † among anthropologists, seem to be inclined to derive this great body of Polish Jews from Palestine by way of the Rhone-Rhine-Frankfort route. They are, no doubt, partially in the right; but the mere geographer would rather be inclined to side with Jacques⁽⁹¹⁾. He doubts whether entirely artificial causes, even mediæval persecutions, would be quite competent for so large a contract. There is certainly some truth in Harkavy's theory, so ably championed by Ikof, that a goodly proportion of these Jews came into Poland by a direct route from the East.‡ Most Jewish scholars had placed their first appearance in southern and eastern Russia, coming around the Black Sea, as early as the eighth century. Ikof, however, finds them in the Caucasus and Armenia one or two centuries before Christ.* Then he follows them around, reaching Ruthenia in the tenth and eleventh centuries, arriving in Poland

* 1892.

† 1895, p. 577.

‡ 1884, p. 383. Cf. criticism by Talko-Hryncewicz, 1892, p. 61.

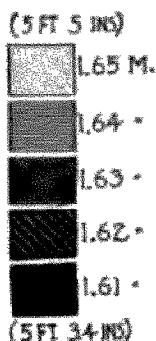
* On the Jews in the Caucasus, Seydlitz, 1881, p. 130; Chantre, 1885-'87, iv, p. 254.

from the twelfth to the fourteenth. The only difficulty with this theory is, of course, that it leaves the language of the Polish Jews out of consideration. This is, in both Poland and Galicia, a corrupted form of German, which in itself would seem to indicate a western origin. On the other hand, the probabilities, judging from our graphic representation, would certainly emphasize the theory of a more general eastern immigration directly from Palestine north of the Black and Caspian Seas. The only remaining mode of accounting for the large centre of gravity in Russia is to trace it to widespread conversions, as the historic one of the Khozars. Whichever one of these theories be correct—and there is probability of an equal division of truth among them all—enough has been said to lead us geographically to suspect the alleged purity of descent of the Ashkenazim Jew. Let us apply the tests of physical anthropology.

Stature.—A noted writer, speaking of the sons of Judah, observes: "It is the Ghetto which has produced the Jew and the Jewish race; the Jew is a creation of the European middle ages; he is the artificial product of hostile legislation." This statement is fully authenticated by a peculiarity of the Israelites which is everywhere noticeable. The European Jews are all undersized; not only this, they are more often absolutely stunted. In London they are about three inches shorter than the average for the city.* Whether they were always so, as in the days when the Book of Numbers (xiii, 33) described them "as grasshoppers in their own sight," as compared with the Amorites, sons of Anak, we leave an open question. We are certain, however, as to the modern Jew. He betrays a marked constancy in Europe at the bodily height of about five feet four inches (1.63 metres) for adult men. This, according to the data afforded by measurements of our recruits during the civil war, is about the average of American youth between the ages of fifteen and sixteen, who have still three, almost four, inches more to grow. In Bosnia, for example, where the natives range at about the American level—that

* Jacobs, 1890, p. 81.

is to say, among the very tallest in the world (1.73 metres)—the Jews are nearly three inches and a half shorter on the average.* If we turn to northern Italy, where Lombroso (94) has recently investigated the matter, we apparently find the Jew somewhat better favoured by comparison. He is in Turin less than an inch inferior to his Italian neighbours.



STATURE POLAND.

167 OBSERVATIONS
APRIL ZAKREWSKI '91

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But why? Not because taller than in the case of Bosnia, for his stature in both places is the same. The difference decreases, not because the Jew in Piedmont is taller, but solely because the north Italians are only of modern height. So it

* Glück, 1896; and Weißbach, 1877 and 1895 a.

goes all over Austria and Russia: the diminutiveness is plainly apparent.* There are in all Europe only two exceptions to the rule we have cited. Anutchin finds them in Odessa and Riga slightly to exceed the Christians, and Dr. Bertholon informs me that in Tunis the Jews are rather taller than the average. Everywhere else the testimony as to their shortness is unanimous. In order to emphasize this point it will repay us to consider the adopted fatherland of the chosen people a bit more in detail.

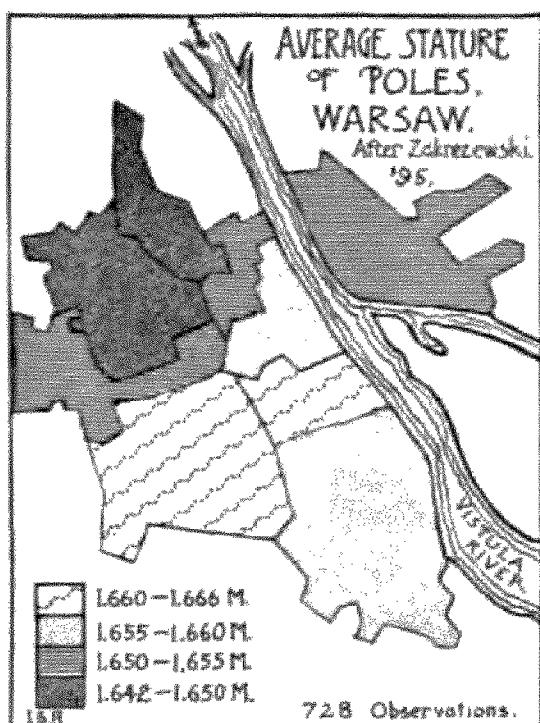
Our map on the opposite page shows the average stature of Poland by districts. This unhappy country appears to be populated by the shortest human beings north of the Alps; it is almost the most stunted in all Europe. The great majority of the districts, as our map shows, are characterized by a population whose adult men scarcely average five feet four inches (1.62 metres) in height. This is more than half a head shorter than the type of the British Isles or northern Germany. What is the meaning of this? Is it entirely the fault of the native Poles? We know that the northern Slavs are all merely mediocre in stature. But this depression is too serious to be accounted for in this way; and further analysis shows that the defect is largely due to the presence of the vast horde of Jews, whose physical peculiarity drags down the average for the entire population.† This has been proved directly. Perhaps the deepest pit in this great "misery spot," as we have termed such areas of dwarfed population elsewhere, is in the capital city of Warsaw, where Elkind found the average stature of two hundred male Jews to be less than five feet three inches and a half (1.61 metres).‡ The women were only four feet eleven inches tall on the average. Compare the little series of maps given on the next pages if further proof of this national peculiarity be needed. Two of these, it will be

* Majer and Kopernicki, 1877, p. 36, for Ruthenia; Stieda, 1883 a, p. 70; Anutchin, 1889, p. 114 *et seq.*

† Zakrezewski, 1891, p. 38. Cf. map of Russia facing p. 348. It brings out the contrast very strongly.

‡ Centralblatt für Anthropologie, iii, p. 66. Uke, cited by Andree, 1881, p. 32, agrees.

observed, give the average height of Jews and Poles respectively, dividing the city into districts. The social status of these districts is shown upon our third map. Comparison of these three brings out a very interesting sociological fact, to which we have already called attention in our earlier chapter on the subject. The stature of men depends in a goodly measure upon their environment. In the wards of the city where prosperity resides, the material well-being tends to produce a stature distinctly above that of the slums. In both cases, Poles and Jews are shortest in the poorer sections of the city, dark tinted on the maps. The correspondence is not exact, for the



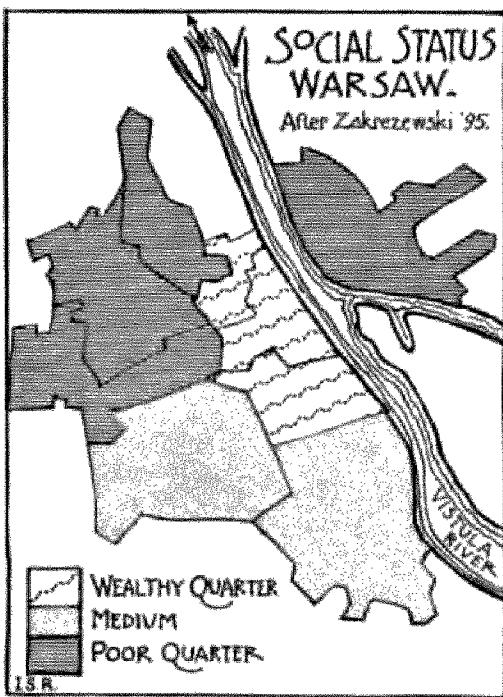
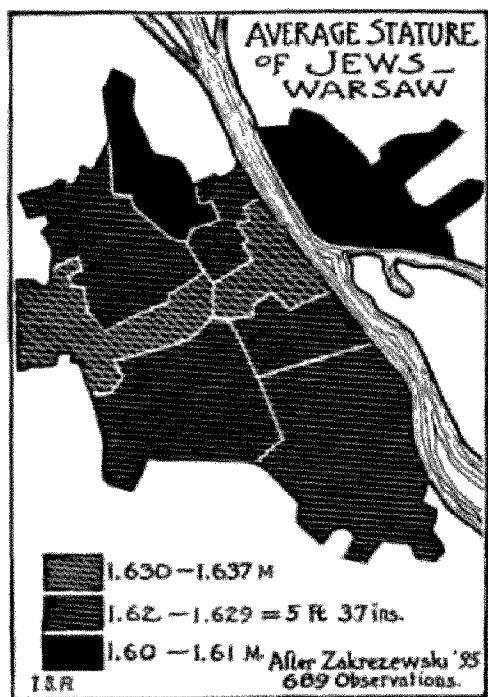
number of observations is relatively small; but it indicates beyond doubt a tendency commonly noticeable in great cities. But to return to our direct comparison of Poles and Jews. The deficiency of the latter, as a people, is perfectly apparent. The most highly favoured Jewish population socially in the whole city of Warsaw in fact, can not produce an average stature equal to that of the very poorest Poles; and this, too, in

the most miserable section of the capital city of one of the most stunted countries in Europe.

We may assume it as proved, therefore, that the Jew is to-day a very defective type in stature. He seems to be susceptible to favourable influences, however; for in London, the West End prosperous Jews almost equal the English in height, while they at the same time surpass their East End brethren by more than three inches.* In Russia also they become taller

* Jacobs, 1889, p. 81.

as a class wherever the life conditions become less rigorously oppressive. They are taller in the fertile Ukraine than in sterile Lithuania; they sometimes boast of a few relatively tall men.* These facts all go to show that the Jew is short, not by heredity, but by force of circumstances; and that where he is given an even chance, he speedily recovers a part at least of the ground lost during many ages of social persecution. Jacobs mentions an interesting fact in this connection about his upper-class English Jews. Close analysis of the data



seems to show that, for the present at least, their physical development has been stretched nearly to the upper limit; for even in individual cases, the West End Jews of London manifest an inability to surpass the height of five feet nine inches. So many have been blessed by prosperity that the average has nearly reached that of the English; but it is a mean stature of which the very tall form no component part. Thus perhaps does the influence of heredity obstruct the temporary action of environment.

* Talko-Hryncевич, 1892, pp. 7 and 58.

Whether the short stature of the Jew is a case of an acquired characteristic which has become hereditary, we are content to leave an open question. All we can say is that the modern Semites in Arabia and Africa are all of goodly size, far above the Jewish average.* This would tend to make us think that the harsh experiences of the past have subtracted several cubits from the stature of the people of Israel. In self-defence it must be said that the Christian is not entirely to blame for this physical disability. It is largely to be ascribed to the custom of early marriages among them. This has probably been an efficient cause of their present degeneracy in Russia, where Tschubinsky describes its alarming prevalence. Leroy-Beaulieu says that it is not at all uncommon to find the combined age of husband and wife, or even of father and mother, to be under thirty years. The *Shadchan*, or marriage broker, has undoubtedly been an enemy to the Jewish people within its own lines. In the United States, where the Jews are, on the other hand, on the up grade socially, there are indications that this age of marriage is being postponed, perhaps even unduly.†

A second indication in the case of the Jew of uncommonly hard usage in the past remains to be mentioned. These people are, anthropologically as well as proverbially, narrow-chested and deficient in lung capacity. Normally the chest girth of a well-developed man ought to equal or exceed one half his stature, yet in the case of the Jews as a class this is almost never the case. Majer and Kopernicki ‡ first established this in the case of the Galician Jews. Stieda * gives additional testimony to the same effect. Jacobs || shows the English Jews distinctly inferior to Christians in lung capacity, which is generally an indication of vitality. In Bosnia, Glück ^ again refers to it as characteristic. Granted, with Weissenberg,◊ that it

* Collignon, 1887 a, pp. 211 and 326; and Bertholon, 1892, p. 41.

† Jacobs, 1891, p. 50, shows it to be less common in other parts of Europe. In the United States, Dr. Billings finds the marriage rate to be only 7.4 per 1,000—about one third that of the Northeastern States.

‡ 1877, p. 59.

* 1883, p. 71.

|| 1889, p. 84.

◊ 1896, p. 591.

◊ 1895, p. 374.

is an acquired characteristic, the effect of long-continued subjection to unfavourable sanitary and social environment, it has none the less become a hereditary trait; for not even the perhaps relatively recent prosperity of Jacob's West End Jews has sufficed to bring them up to the level of their English brethren in capacity of the lungs.

At this point a surprising fact confronts us. Despite the appearances of physical degeneracy which we have noted, the Jew betrays an absolutely unprecedented tenacity of life. It far exceeds, especially in the United States, that of any other known people.* This we may illustrate by the following example: Suppose two groups of one hundred infants each, one Jewish, one of average American parentage (Massachusetts), to be born on the same day. In spite of all the disparity of social conditions in favour of the latter, the chances, determined by statistical means, are that one half of the Americans will die within forty-seven years; while the first half of the Jews will not succumb to disease or accident before the expiration of seventy-one years. The death rate is really but little over half that of the average American population. This holds good in infancy as in middle age. Lombroso has put it in another way. Of one thousand Jews born, two hundred and seventeen die before the age of seven years; while four hundred and fifty-three Christians—more than twice as many—are likely to die within the same period. This remarkable tenacity of life is well illustrated by the table on the next page from a most suggestive article by Hoffmann.† We can not forbear from reproducing it in this place.

From this table it appears, despite the extreme poverty of the Russian and Polish Jews in the most densely crowded portions of New York; despite the unsanitary tenements, the overcrowding, the long hours in sweat shops; that neverthe-

* On Jewish demography, consult the special appendix in Lombroso, 1894 b; Andree, 1881, p. 70; Jacobs, 1891, p. 49. Dr. Billings, in Eleventh United States Census, 1890, Bulletin No. 19, gives data for our country. On pathology, see Buschan, 1895.

† *The Jew as a Life Risk*; *The Spectator* (an actuarial journal), 1895, pp. 222–224, and 233, 234. Lagneau, 1861, p. 411, speaks of a viability in Algeria even higher than that of the natives.

Death Rates per 1,000 Population in the Seventh, Tenth, and Thirteenth Wards of New York City, 1890, by Place of Birth.

AGES.	Total.	United States (includes col- oured).	Ireland.	Germany.	Russia and Poland (mostly Jews)
Total.....	26.25	45.18	36.04	22.14	16.71
Under 15 years ...	41.28	62.25	40.71	30.38	32.31
15 to 25 years.....	7.55	9.43	15.15	7.14	2.53
25 to 65 years.....	21.64	25.92	39.51	21.20	7.99
65 and over	104.72	105.96	120.92	88.51	84.51

less, a viability is manifested which is simply unprecedented. Tailoring is one of the most deadly occupations known; the Jews of New York are principally engaged in this employment; and yet they contrive to live nearly twice as long on the average as their neighbours, even those engaged in the outdoor occupations.

Is this tenacity of life despite every possible antagonistic influence, an ethnic trait; or is it a result of peculiar customs and habits of life? There is much which points to the latter conclusion as the correct one. For example, analysis of the causes of mortality shows an abnormally small proportion of deaths from consumption and pneumonia, the dread diseases which, as we know, are responsible for the largest proportion of deaths in our American population. This immunity can best be ascribed to the excellent system of meat inspection prescribed by the Mosaic laws.* It is certainly not a result of physical development, as we have just seen. Hoffmann cites authority showing that in London often as much as a third of the meats offered for sale are rejected as unfit for consumption by Jews. Is not this a cogent argument in favour of a more rigid enforcement of our laws providing for the food inspection of the poor?

A second cause conducive to longevity is the sobriety of the Jew, and his disinclination toward excessive indulgence in alcoholic liquors. Drunkenness among Jews is very rare. Temperate habits, a frugal diet, with a very moderate use of spirits, render the proportion of Bright's disease and affec-

* Jacobs, 1886 a, p. 7, discusses these fully.

tions of the liver comparatively very small. In the infectious diseases, on the other hand, diphtheria and the fevers, no such immunity is betrayed. The long-current opinion that the Jews were immune from cholera and the other pestilences of the middle ages is not to-day accepted.* A third notable reason for this low death rate is also, as Hoffmann observes, the nature of the employment customary among Jews, which renders the proportion of deaths from accidental causes exceedingly small. In conclusion, it may be said that these people are prone to nervous and mental disorders; insanity, in fact, is fearfully prevalent among them. Lombroso asserts it to be four times as frequent among Italian Jews as among Christians. This may possibly be a result of close inbreeding in a country like Italy, where the Jewish communities are small. It does not, however, seem to lead to suicide, for this is extraordinarily rare among Jews, either from cowardice as Lombroso suggests, or more probably for the reason cited by Morselli—namely, the greater force of religion and other steadyng moral factors.

Tradition has long divided the Jewish people into two distinct branches: the Sephardim or southern, and the Ashkenazim, or north European. Mediæval legend among the Jews themselves traced the descent of the first from the tribe of Judah; the second, from that of Benjamin. The Sephardim are mainly the remnants of the former Spanish and Portuguese Jews. They constitute in their own eyes an aristocracy of the nation. They are found primarily to-day in Africa; in the Balkan states, where they are known as Spagnuoli; less purely in France and Italy. A small colony in London and Amsterdam still holds itself aloof from all communion and intercourse with its brethren. The Ashkenazim branch is numerically far more important, for the German, Russian, and Polish Jews comprise over nine tenths of the people, as we have already seen.

Early observers all describe these two branches of the

* Buschan, 1895, p. 46.

Jews as very different in appearance. Vogt in his Lectures on Man assumes the Polish type to be descended from Hindu sources, while the Spanish alone he held to be truly Semitic. Weisbach * gives us the best description of the Sephardim Jew as to-day found at Constantinople. He is slender in habit, he says; almost without exception the head is "exquisitely" elongated and narrow, the face a long oval; the nose hooked and prominent, but thin and finely chiselled; hair and eyes generally dark, sometimes, however, tending to a reddish blond. This rufous tendency in the Oriental Jew is emphasized by many observers. Dr. Beddoe † found red hair as frequent in the Orient as in Saxon England, although later results do not fully bear it out.‡ This description of a reddish Oriental type corresponds certainly to the early representations of the Saviour; it is the type, in features perhaps rather than hair, painted by Rembrandt—the Sephardim in Amsterdam being familiar to him, and appealing to the artist in preference to the Ashkenazim type. This latter is said to be characterized by heavier features in every way. The mouth, it is alleged, is more apt to be large, the nose thickish at the end, less often clearly Jewish perhaps. The lips are full and sensual, offering an especial contrast to the thin lips of the Sephardim. The complexion is swarthy oftentimes, the hair and eyes very constantly dark, without the rufous tendency which appears in the other branch. The face is at the same time fuller, the breadth corresponding to a relatively short and round head.

Does this contrast of the traditional Sephardim and Ashkenazim facial types correspond to the anthropometric criteria by means of which we have analyzed the various populations of Europe? And, first of all, is there the difference of head form between the two which our descriptions imply? And, if so, which represents the primitive Semitic type of Palestine? The question is a crucial one. It involves the whole matter of the original physical derivation of the people, and the rival claims to purity of descent of the two branches of the nation.

* 1877, p. 214.

† 1861 b, pp. 227 and 331.

‡ Glick, 1896 a. Jacobs, 1890, p. 82, did not find a trace of it in the Sephardim congregation in London. See Andree, 1878, in this connection.

In preceding chapters we have learned that western Asia is quite uniformly characterized by an exceeding broad-headedness. This is especially marked in Asia Minor, where some of the broadest and shortest crania in the world are to be found. The Armenians, for example, are so peculiar in this respect that their heads appear almost deformed, so flattened are they at the back. A head of this description appears in the case of the Jew from Ferghanah in our second portrait series (page 394). On the other hand, the peoples of African or negroid derivation form a radical contrast, their heads being quite long and narrow, with indices ranging from 75 to 78. This is the type of the living Arab to-day. Its peculiarity appears in the prominence of the occipital region in our Arab and other African portraits. Scientific research upon these Arabs has invariably yielded harmonious results. From the Semites in the Canary Islands,* all across northern Africa,† to central Arabia itself,‡ the cephalic indices of the nomadic Arabs agree closely. They denote a head form closely allied to that of the long-headed Iberian race, typified in the modern Spaniards, south Italians, and Greeks. It was the head form of the ancient Phœnicians and Egyptians also, as has recently been proved beyond all question.* Thus does the European Mediterranean type shade off in head form, as in complexion also, into the primitive anthropological type of the negro. The situation being thus clearly defined, it should be relatively easy to trace our modern Jews; if, indeed, as has so long been assumed, they have remained a pure and undefiled race during the course of their incessant migrations. We should be able to trace their origin if they possess any distinctive head form, either to the one continent or the other, with comparative certainty.

During the last quarter of a century about twenty-five hundred Jews have submitted their heads to scientific measure-

* Verneau, 1881 a, p. 500.

† Pruner Bey, 1865 b; Gillebert d'Hercourt, 1868, p. 9; and especially Collignon, 1887 a, pp. 326-339; Bertholon, 1892, p. 41; also Collignon, 1896 b.

‡ Elisyeef, 1883.

* Bertholon, 1892, p. 43; Sergi, 1897 a, chapter i, and even more recently Fouquet, 1896 and 1897, on the basis of De Morgan's discoveries.

ment. These have naturally for the most part been taken from the Great Russian and Polish branch; a few observers, as Lombroso, Ikof, Jacobs, Glück, and Livi, have taken observations upon a more or less limited number from southern Europe. For purposes of comparison we have reproduced herewith a summary of all the results obtained thus far. In-

AUTHORITY.	Place.	Number.	Cephalic Index.
Lombroso, '894 a.	Turin, Italy.	112	82.0
Weisbach, '77....	Balkan states.	19	82.2
Majer and Kopernicki, '77.....	Galicia.	316	83.6
Blechmann, '82....	W. Russia.	100	83.21
Stieda, '83 a (Dybowski).....	Minsk, Russia.	67	82.2
Ikof, '84	Russia.	120	83.2
Ikof, '84	Constantinople.	17 crania.	74.5
Ikof, '84	Crimea.	30 crania (Karaim).	83.3
Majer and Kopernicki, '85.....	Galicia.	100	81.7
Jacobs, '90.....	England.	363	80.0
Jacobs, '90.....	England (Sephardim).	51	
Talko-Hryncewicz, '92	Lithuania.	713	
Deniker, '98 a ...	Caucasia.	53	85.2
Weissenberg, '95.	South Russia.	100	82.5
Weissenberg, '95.	South Russia.	50 women.	82.4
Glück, '96.....	Bosnia (Spagnuoli).	55	80.1
Livi, '96 a.....	Italy.	34	81.6
Elkind, '97.....	Poland.	325	{ Men, 81.9 Women, 82.9
Deniker, '98.....	Daghestan.	19	87.0
Ammon, '99.....	Baden.	207	83.5

spection of the table shows a surprising uniformity. Ikof's limited series of Spagnuoli from Constantinople, and that of the Jews from Caucasia and Daghestan, are the only ones whose cephalic index lies outside the limits of 80 to 83. In other words, the Jews wherever found in Europe betray a remarkable similarity in head form, the crania being considerably broader than among the peoples of Teutonic descent. As we know, the extremes of head form in Europe measured by the cephalic index extend from 74 to 89; we thus observe that the Jews take a place rather high in the European series. They are about like the northern French and southern Germans. More important still, they seem to be generally very

closely akin in head form to the people among whom they reside. Thus in Russia and Poland scarcely an appreciable difference exists in this respect between Jews and Christians. The same is true in Turin, while in the direction of Asia our Jews are as bullet-headed as even the most typical Armenians and Caucasians round about them.

This surprising similarity of head form between the Jews of north and south Europe bears hard upon the long-accepted theory that the Sephardim is dolichocephalic, thereby remaining true to the original Semitic type borne to-day by the Arabs. It has quite universally been accepted that the two branches of the Jews differed most materially in head form. From the facial dissimilarity of the two a correlative difference in head form was a gratuitous inference. Dr. Beddoe observes that in Turkey the Spagnuoli "seemed" to him to be more dolichocephalic. A few years later Barnard Davis (⁶⁷) "suspected" a diversity, but had only three Italian skulls to judge from, so that his testimony counts for little. Then Weisbach (⁷⁷) referred to the "exquisitely" long heads of the Spagnuoli, but his data show a different result. Ikof with his small series of crania from Constantinople, is the only observer who got a result which accords in any degree with what we know of the head form of the modern Semitic peoples. On the other hand, Glück in Bosnia and Livi in Italy find no other sign of long-headedness than a slight drop in index of a point or two. Jacobs in England, whose methods, as Topinard has observed, are radically defective, gives no averages for his Sephardim, but they appear to include about eleven per cent less pure long-headed types than even their Ashkenazim brethren in London. This, it will be noted, is the exact opposite of what might normally be expected. This tedious summary forces us inevitably to the conclusion that, while a long-headed type of Sephardim Jews may exist, the law is very far from being satisfactorily established.

Thus, from a study of our primary characteristic—the proportions of the head—we find our modern Jews endowed with a relatively much broader head than that of the average Englishman, for example: while the best living representative of

the Semitic peoples, the Arab, has a head which is even longer and narrower than our own type. It is in short one of the longest known, being in every way distinctly African. The only modern Jews who even approach this type would seem to be those who actually reside to-day in Africa, as in the case of our two portrait types from that region. Two possible explanations are open to us: either the great body of the Jews in Europe to-day—certainly all the Ashkenazim, who form upward of ninety per cent of the nation, and quite probably the Sephardim also, except possibly those in Africa—have departed widely from the parental type in Palestine; or else the original Semitic type was broad-headed, and by inference distinctly Asiatic in derivation; in which case it is the modern Arab which has deviated from its original pattern. Ikof is the only authority who boldly faces this dilemma, and chooses the Asiatic hypothesis with his eyes open.* Which, we leave it to the reader to decide, would be the more likely to vary—the wandering Jew, ever driven from place to place by constant persecution, and constantly exposed to the vicissitudes of life in densely populated cities, the natural habitat of the people, as we have said; or the equally nomadic Arab, who, however, seems to be invariable in type whether in Algeria, Morocco, or Arabia Felix itself? There can be but one answer, it seems to us. The original Semitic stock must have been in origin strongly dolichocephalic—that is to say, African as the Arabs are to-day; from which it follows naturally, that about nine tenths of the living Jews are as widely different in head form from the parent stock to-day as they well could be. The boasted purity of descent of the Jews is, then, a myth. Renan⁽⁸⁸⁾ is right, after all, in his assertion that the ethnographic significance of the word Jew, for the Russian and Danubian branch at least, long ago ceased to exist. Or, as Lombroso observes, the modern Jews are physically more Aryan than Semitic, after all. They have unconsciously taken on to a large extent the physical traits of the people among

* Compare Brinton, 1890 a, p. 132, and 1890 b, for interesting linguistic data on the Semites.

whom their lot has been thrown. In Algiers they have remained long-headed like their neighbours; for, even if they intermarried, no tendency to deviation in head form would be provoked. If on the other hand they settled in Piedmont, Austria, or Russia, with their moderately round-headed populations, they became in time assimilated to the type of these neighbours as well.

Nothing is simpler than to substantiate the argument of a constant intercourse and intermixture of Jews with the Christians about them all through history, from the original exodus of the forty thousand (?) from Jerusalem after the destruction of the second temple. At this time the Jewish nation as a political entity ceased to exist. An important consideration to be borne in mind in this connection, as Neubauer⁽⁸⁶⁾ suggests very aptly, is that opposition to mixed marriages was primarily a prejudice of religion and not of race. It was dissipated on the conversion of the Gentile to Judaism. In fact, in the early days of Judaism marriage with a non-believer was not invalid at all, as it afterward became, according to the Jewish code. Thus Josephus, speaking of the Jews at Antioch, mentions that they made many converts receiving them into their community. An extraordinary number of conversions to Judaism undoubtedly took place during the second century after Christ. As to the extent of intermarriage which ensued during the middle ages discussion is still rife. Renan, Neubauer, and others interpret the various rigid prohibitions against intermarriage of Jews with Christians—as, for example, at the church councils of 538, 589 at Toledo, and of 743 at Rome—to mean the prevalent danger of such practices becoming general; while Jacobs, Andree, and others are inclined to place a lower estimate upon their importance. Two wholesale conversions are known to have taken place: the classical one of the Khozars in South Russia during the reign of Charlemagne, and that of the Falashas, who were neighbouring Arab tribes in Yemen. Jacobs has ably shown, however, the relatively slight importance of these. It is probable that the greatest amount of infusion of Christian blood must have taken place, in any event, not so much through such

striking conversions as insidiously through clandestine or irregular marriages.

We find, for example, much prohibitive legislation against the employment of Christian servants by Jews. This was directed against the danger of conversion to Judaism by the master with consequent intermarriage. It is not likely that these prohibitions were of much avail, for despite stringent laws in Hungary, for example, we find the archbishop of that country reporting in 1229 that many Jews were illegally living with Christian wives, and that conversions by thousands were taking place. In any case, no protection for slaves was ever afforded. The confinement of the Jews strictly to the Ghettos during the later centuries would naturally discourage such intermixture of blood, as also the increasing popular hatred between Jew and Christian; but, on the other hand, the greater degree of tolerance enjoyed by the Israelites even during this present century would be competent speedily to produce great results. Jacobs has strenuously, although perhaps somewhat inconclusively, argued in favour of a substantial purity of the Jews by means of a number of other data—such as, for example, by a study of the relative frequency of Jewish names, by the supposed relative infecundity of mixed marriages, and the like. Recent statistics also point in this direction. Thus in Germany about ninety-five per cent of the Jews marry those of their own belief.* Experience and the facts of everyday observation, on the other hand, tend to confirm us in the belief that racially no purity of descent is to be supposed for an instant. Consider the evidence of names, for example. We may admit a considerable purity, perhaps, to the Cohns and Cohens, legitimate descendants of the *Cohanim*, the sons of Aaron, early priests of the temple. Their marital relations were safeguarded against infusion of foreign blood in every possible way. The name is, perhaps, in its various forms, the most frequent among Jews to-day. But how shall we account for the equally pure Jewish names in origin, such as Davis, Harris, Phillips, and Hart? How did they ever

* Pubs. American Statistical Association, iii, 1892-'93, p. 244, from Zeits. Kön. preuss. stat. Bureaus, 1891.

stray so far from their original ethnic and religious significance, unless the marital bars were lowered to a large degree? Some of them certainly claim a foremost position numerically in our Christian English directories. We have an interesting case of indefinite Jewish delimitation in our portraits. The middle one at page 387 is certainly a Jewish type. Dr. Bertholon writes me that all who saw it immediately asserted it to be a Jew. Yet the man was a professed Mussulman in fact, even though his face was against him.

There is, as we have sought to prove, no single uniform type of head peculiar to the Jewish people which may be regarded as in any sense racially hereditary. Is this true also of the face? Our first statement encounters no popular disapproval; for most of us never, perhaps, happened to think of this head form as characteristic. But the face, the features! Is this another case of science running counter to popular belief?

The first characteristic to impress itself upon the layman is that the Jew is generally a brunet. All scientific observers corroborate this impression, agreeing that the dark hair and eyes of this people really constitute a distinct racial trait. About two thirds of the Ashkenazim branch in Galicia and Russia where the general population is relatively quite blond, is of the brunet type, this being especially marked in the darker colour of the hair. For example, Majer and Kopernicki,* in Galicia, found dark hair to be about twice as frequent as the light. Elkind,† in Warsaw, finds about three fifths of the men dark. In Bosnia, Glück's observations on the Sephardim type gave him only two light-haired men out of fifty-five. In Germany and Austria ‡ this brunet tendency is likewise strongly emphasized. Pure brunet types are twice as frequent in the latter country, and three times as frequent in Germany, among Jewish as among Christian school children. Ammon (¹⁸⁸⁹) finds black hair most frequent among Jews in Baden, all recruits showing a strong tendency in the same direction. Facts also

* 1877, pp. 88-90; 1885, p. 34.

† Centralblatt für Anthropologie, vol. iii, p. 66.

‡ Virchow, 1886 b, p. 364; Schimmer, 1884, p. xxiii.

seem to bear out the theory, to which we have already alluded, that the Oriental Jews betray a slightly greater blond tendency, thus inclining to rufous. In Germany also the blond tendency becomes more frequent in Alsace-Lorraine. This comparative blondness of the Alsatian Jew is not new, for in 1861 the origin of these same blonds was matter of controversy. Broca believed them to be of northern derivation, while Pruner Bey traced them from a blondish Eastern source. The English Jews seem also to be slightly lighter than their continental brethren, even despite their presumably greater proportion of Sephardim, who are supposed to be peculiarly dark. As to the relative red blondness of the Oriental Jew, the early observations of Dr. Beddoe, and those of Langerhans * as to the blue eyes and red-brown hair of the Druses of Lebanon, while substantiated by some observers, is controverted by Jacobs and others. Perhaps, as Dr. Beddoe suggests, a cross with the blond Amorites may account for the phenomenon. At all events, the living Semites are dark enough in type: and the evidence of the sacred books bears out the same theory of an original dark type. Thus "black" and "hair" are commonly synonymous in the early Semitic languages. In any case, whatever the colour in the past, we have seen that science corroborates the popular impression that the modern Jews are distinctively of a brunet type. This constitutes one of the principal traits by which they may be almost invariably identified. It is not without interest to notice that this brunetness is more accentuated oftentimes among the women, who are, the world over, persistent conservators of the primitive physical characteristics of a people.†

Secondly, as to the nose. Popularly the humped or hook nose constitutes the most distinctive feature of the Jewish face. Observations among the Jews in their most populous centres do not, however, bear out the theory. Thus Majer and Kopernicki ("⁸⁵"), in their extended series, found only nine per cent of the hooked type—no greater frequency than among the

* 1873, p. 270.

† Weissenberg, 1895, p. 567, finds brunets twice as frequent among the south Russian Jewesses as among the men.

Poles; a fact which Weissenberg confirms as to the relative scarcity of the convex nose in profile among his South Russian Jews. He agrees, however, that the nose is often large, thick, and prominent. Weisbach ("") measured the facial features of nineteen Jews, and found the largest noses in a long series of people from all over the earth; exceeded in length, in fact, by the Patagonians alone. The hooked nose is, indeed, sometimes frequent outside the Jewish people. Olechnowicz found, for example, over a third of the noses of the gentry in southeast Poland to be of this hooked variety. Running the eye over our carefully chosen series of portraits, selected for us as typical from four quarters of Europe—Algeria, Russia, Bosnia, and the confines of Asia—representing the African, Balkan Spagnuoli, and Russian Ashkenazim varieties, visual impressions will also confirm our deduction. The Jewish nose is not so often truly convex in profile. Nevertheless, it must be confessed that it gives a hooked impression. This seems to be due to a peculiar "tucking up of the wings," as Dr. Beddoe expresses it. Herein lies the real distinctive quality about it, rather than in any convexity of outline. In fact, it often renders a nose concave in profile, immediately recognisable as Jewish. Jacobs * has ingeniously described this "nose-trility," as he calls it, by the

accompanying diagrams:

Write, he says, a figure 6 with a long tail (Fig. 1); now remove the turn of the twist, and much of the Jewishness disappears;



Fig. 1.



Fig. 2.



Fig. 3.

and it vanishes entirely when we draw the lower continuation horizontally, as in Fig. 3. Behold the transformation! The Jew has turned Roman beyond a doubt. What have we proved, then? That there is in reality such a phenomenon as a Jewish nose, even though it be differently constituted from our first assumption. A moment's inspection of our series of portraits will convince the sceptic that this trait, next to the prevalent

* 1886 a, p. xxxii.

dark hair and eyes and the swarthy skin, is the most distinctive among the chosen people.

Another characteristic of the Jewish physiognomy is the eyes. The eyebrows, seemingly thick because of their darkness, appear to be nearer together than usual, arching smoothly into the lines of the nose. The lids are rather full, the eyes large, dark, and brilliant. A general impression of heaviness is apt to be given. In favourable cases this imparts a dreamy, melancholy, or thoughtful expression to the countenance; in others it degenerates into a blinking, drowsy type; or, again, with eyes half closed, it may suggest suppressed cunning. The particular adjective to be applied to this expression varies greatly according to the personal equation of the observer. Quite persistent also is a fulness of the lips, often amounting in the lower one almost to a pout. The chin in many cases is certainly rather pointed and receding, Jacobs to the contrary notwithstanding. A feature of my own observation, perhaps not fully justified, is a peculiar separation of the teeth, which seem to stand well apart from one another. But a truce to speculations. Entering into greater detail, the flat contradictions of different observers show that they are vainly generalizing from an all too narrow base of observations. Even the fancied differences in feature between the two great branches of the Hebrew people seem to us to be of doubtful existence. Our portraits do not bear it out. It seems rather that the two descriptions of the Ashkenazim and Sephardim types which we have quoted, denote rather the distinction between the faces of those of the upper and the lower classes. Enough for us to know that there is a something Jewish in these faces which we instantly detect. We recognise it in Rembrandt's Hermitage, or in Munkaczy's Christ before Pilate. Not invariable are these traits. Not even to the Jew himself are they always a sure criterion. Weissenberg gives an interesting example of this.* To a friend, a Jew in Elizabethgrad, he submitted two hundred and fifty photographs of Russian Jews and Christians in undistinctive costume. Seventy per

cent of the Jews were rightly chosen, while but ten per cent of the Russians were wrongly classed as Jews. Of what concern is it whether this characterization be entirely featural, or in part a matter of expression? The first would be a matter of direct heredity, the second partakes more of the nature of a characteristic acquired from the social environment. Some one—Jacobs, I think—speaks of it as the “expression of the Ghetto.” It certainly appears in the remarkable series of composite Jewish portraits published in his monograph. It would not be surprising to find this true. Continued hardship, persecution, a desperate struggle against an inexorable human environment as well as natural one, could not but write its lines upon the face. The impression of a dreary past is deep sunk in the bodily proportions, as we have seen. Why not in the face as well?

We are now prepared, in conclusion, to deal with what is perhaps the most interesting phase of our discussion. It is certainly, if true, of profound sociological importance. We have in these pages spoken at length of the head form—primary index of race; we have shown that there are Jews and Jews in this respect. Yet which was the real Jew it was not for us to decide; for the ninety-and-nine were broad-headed, while the Semite in the East is still, as ever, a long-headed member of the Africanoid races. This discouraged our hopes of proving the existence of a Jewish cephalic type as the result of purity of descent. It may indeed be affirmed with certainty that the Jews are by hereditary descent from early times no purer than most of their European neighbours. Then we discovered evidence that in this head form the Jews were often closely akin to the people among whom they lived. In long-headed Africa they were dolichocephalic. In brachycephalic Piedmont, though supposedly of Sephardim descent, they were quite like the Italians of Turin. And all over Slavic Europe no distinction in head form between Jew and Christian existed. In the Caucasus also they approximate closely the cranial characteristics of their neighbours. Hypnotic suggestion was not needed to find a connection here, especially since all history bore us out in the assumption of a large degree of intermixture

of Gentile blood. Close upon this disproof of purity of type by descent, came evidence of a distinct uniformity of facial type. Even so impartial an observer as Weissenberg—certainly not prejudiced in favour of cephalic invariability—confesses this featural unity.

How shall we solve this enigma of ethnic purity and yet impurity of type? In this very apparent contradiction lies the grain of comfort for our sociological hypothesis. The Jew is radically mixed in the line of *racial descent*; he is, on the other hand, the legitimate heir to all Judaism as a matter of *choice*. It is for us a case of purely artificial selection, operative as ever only in those physical traits which appeal to the senses. It is precisely analogous to our example of the Basques in France and Spain. What we have said of them will apply with equal force here. Both Jews and Basques possessed in a high degree a "consciousness of kind"; they were keenly sensible of their social individuality. The Basques primarily owed theirs to geographical isolation and a peculiar language; that of the Jews was derived from the circumstances of social isolation, dependent upon the dictates of religion. Another case in point occurs to us in this connection. Chantre ('95), in a recent notable work, has shown the remarkable uniformity in physical type among the Armenians. They are so peculiar in head form that we in America recognise them at once by their foreshortened and sugar-loaf skulls, almost devoid of occiput. They too, like the Jews, have long been socially isolated in their religion. Thus in all these cases, Basques, Armenians, and Jews, we have a potent selective force at work. So far as in their power lay, the individuality of all these people was encouraged and perpetuated as one of their dearest possessions. It affected every detail of their lives. Why should it not also react upon their ideal of physical beauty? and why not influence their sexual preferences, as well as determine their choice in marriage? Its results became thus accentuated through heredity. But all this would be accomplished, be it especially noted, only in so far as the physical traits were consciously or unconsciously impressed upon them by the facts of observation. There arises at once the difference between

artificial selection in the matter of the head form and that concerning the facial features. One is an unsuspected possession of individuality, the other is matter of common notice and, it may be, of report. What Jew or Christian, till he became an anthropologist, ever stopped to consider the shape of his head, any more than the addition of a number of cubits to his stature? Who has not, on the other hand, early acquired a distinct concept of a Jewish face and of a distinctly Jewish type? Could such a patent fact escape observation for a moment?

We are confirmed in our belief in the potency of an artificial selection such as we have described, to perpetuate or to evolve a Jewish facial type by reason of another observation. The women among the Jews, as Jacobs * notes in confirmation of our own belief, betray far more constantly than the men the outward characteristics peculiar to the people. We have already cited Weissenberg's testimony that brunetness is twice as prevalent among Russian Jewesses as among the men. Of course this may be a matter of anabolism, pure and simple. This would be perhaps a competent explanation of the phenomenon for physiologists like Geddes and Thompson. For us this other cause may be more directly responsible. Artificial selection in a social group wherein the active choice of mates falls to the share of the male, might possibly tend in the direction of an accentuated type in that more passive sex on which the selective influence directly plays. At all events, observations from widely scattered sources verify the law that the facial individuality of a people is more often than otherwise expressed most clearly in the women. Thus, for example, Lagneau asserts this to be true of the Basques in France. The women betray the Mongol type more constantly than the men among the Asiatic tribes of eastern Russia, as well as among the Turkomans.† Mainof, best of authority, confirms the same tendency among those of Finnic descent.‡ The *Sette Comuni*

* 1886 a, p. xxviii.

† Sommier, 1887, reprint p. 116. Vámbéry, 1885, p. 404. Cf. Zograf, 1896, p. 50, on crania from the sixteenth century in Moscow; and Ranke, 1897 a, p. 56, on the persistent brachycephaly of women in Munich.

‡ Congrès int. des sciences géographiques, Paris, 1875, p. 268.

in northern Italy still preserve their German language as evidence of a historic Teutonic descent. They seem to have lost their identity entirely in respect of the head form,* but Ranke † states that among the women the German facial type constantly reappears. A better example than this is offered among the Hamitic aborigines of Africa north of the Sahara. These peoples, from Abyssinia to Morocco, really belong to the white races of Europe. Among nearly all their tribes the negroid traits are far more accentuated among the women, according to Sergi.‡ In the British Isles, as we have seen, a brunet substratum of population is overlaid by a Teutonic blond one. Darkness of hair, and particularly of eyes, is in many places characteristic of the women.* This is so noticeable in Alsace, where a similar supersession of a dark by a light population has occurred, that Pfitzner || is led to affirm that abundant pigmentation constitutes a real sexual peculiarity among women. Another interesting case of this kind is offered by the Bulgarian women, who seem to represent a more primitive cranial type than the men.▲ It is not necessary to cite more specific testimony.◊ The law occupies a respected place among anthropologists. That the Jews confirm it, would seem to strengthen our hypothesis at every point.

Our final conclusion, then, is this: It is paradoxical, yet true, we affirm. The Jews are not a race, but only a people, after all. In their faces we read its confirmation: while in respect of their other traits we are convinced that such individuality as they possess—by no means inconsiderable—is of their own making from one generation to the next, rather than a product of an unprecedented purity of physical descent.

* Livi, 1896 a, pp. 137 and 146.

† Beiträge zur Anth. Bayerns, vol. ii, 1879, p. 75.

‡ Africa, Antropologia della Stirpe Camitica, Torino, 1897, p. 263.

* Haddon and Browne, 1893, pp. 782–786; Gray, 1895 b, p. 21; Ellis, Man and Woman, p. 226.

|| 1897, pp. 484–498.

▲ *Vide page 427 infra.*

◊ Havelock Ellis, Man and Woman, second edition, p. 367, gives other examples.

CHAPTER XV.

EASTERN EUROPE: THE GREEK, THE TURK, AND THE SLAV; MAGYARS AND ROUMANIANS.

THE significant geography of the Balkan Peninsula may best be illustrated by comparing it with the other two south European ones, Italy and Spain.* The first point to notice is that it is divided from the mainland by rivers and not by a well-defined mountain chain. Iberia begins definitely at the Pyrenees, and Italy proper is cut off from Europe by the Apennine chain. On the other hand, it is along the line of the Danube and of its western affluent, the Save (see map at page 403) that we find the geographical limits of the Balkan Peninsula. This boundary, as will be observed, excludes the kingdom of Roumania, seeming to distinguish it from its trans-Danubian neighbour Bulgaria. This is highly proper, viewed both in respect of the character of its population as we shall see, and also from the standpoint of geography and topography as well. For Roumania is for the most part an extensive and rich alluvial plain; while the Balkan Peninsula, as soon as you leave the Bulgarian lowlands, is characteristically rugged, if not really mountainous.

From Adrianople west to the Adriatic, and from the Balkan Mountains and the Save River south to the plains of Epirus and Thessaly, extends an elevated region upward of two thousand feet above the sea, breaking up irregularly into peaks

* A very concise description of the geography of this region in its relation to man will be found in A. S. White (*The Balkan States*, Scottish Geographical Magazine, ii, 1886, pp. 657-676, with maps). Freeman's brilliant Essays, particularly those of 1877 and 1879, should be read in this connection.

often rising above five thousand feet.* There is no system in these mountains. Here again is a contrast with other areas of characterization in Europe. In the main, in Albania, Montenegro, and Herzegovina the course of these chains is parallel to the Adriatic; in its eastern half they are rather more at right angles to the Black Sea; but definiteness of topography is lacking throughout. The land is rudely broken up into a multitude of little "gateless amphitheatres," too isolated for union, yet not inaccessible enough for individuality. As White observes, "if the peninsula, instead of being the highly mountainous and diversified district it is, had been a plateau, a very different distribution of races would have obtained at the present day." Nor can one doubt for a moment that this disordered topography has been an important element in the racial history of the region.

In its other geographical characteristics this peninsula is seemingly more favoured than either Spain or Italy. More varied than the former, especially in its union of the two flora of north and south; far richer in contour, in the possession of protected waters and good harbours than Italy; the Balkan Peninsula nevertheless has been, humanly speaking, unfortunate from the start. The reason is patent. It lies in its central or rather intermediate location. It is betwixt and between; neither one thing nor the other. Surely a part of Europe, its rivers all run to the east and south. "By physical relief it turns its back on Europe," continually inviting settlement from the direction of Asia. It is no anomaly that Asiatic religions, Asiatic institutions, and Asiatic races should have possessed and held it; nor that Europe, Christianity, and the Aryan-speaking races should have resisted this invasion of territory, which they regarded in a sense as their own. In this pull and haul between the social forces of the two continents we finally discover the dominant influence, perhaps, which throughout history has condemned this region to political disorder and ethnic heterogeneity.

As little racial as of topographical system can we discover

* A good geological and topographical map will be found in *Mitt. Geog. Gesell.*, Wien, xxiii, 1889.

in the Balkan states. Only in one respect may we venture upon a little generalization. This is suggested by the preliminary bird's-eye view which we must take as to the languages spoken in the peninsula. This was a favourite theme with the late historian, Freeman.* It is developed in detail in his luminous writings upon the Eastern question. The Slavs have in this part of Europe played a rôle somewhat analogous to, although less successful than, that of the Teutons in the west. They have pressed in upon the territory of the classic civilizations of Greece and Rome, ingrafting a new and physically vigorous population upon the old and partially enervated one. From some centre of dispersion up north toward Russia, Slavic-speaking peoples have expanded until they have rendered all eastern Europe Slavic from the Arctic Ocean to the Adriatic and Ægean Seas. Only at one place is the continuity of Slavdom broken; but this interruption is sufficient to set off the Slavs into two distinct groups at the present day. The northern one, of which we have already treated, consists of the Russians, Poles, Czechs, and Slovaks. The southern group, now before us, comprises the main body of the Balkan peoples from the Serbo-Croatians to the Bulgars, as shown upon the accompanying map. Between these two groups of Slavs—and herein is the significant point—is a broad belt of non-Slavic population, composed of the Magyars, linguistically now as always, Finns; and the Roumanians, who have become Latin in speech within historic times. This intrusive, non-Slavic belt lies along or near the Danube, that great highway over which eastern peoples have penetrated Europe for centuries. The presence of this water way is distinctly the cause of the linguistic phenomenon. Rome went east, and the Finns, like the Huns, went west along it, with the result as described. Linguistically speaking, therefore, the boundary of the southern Slavs and that of the Balkan Peninsula, beginning, as we have said, at the Danube, are one and the same.

We may best begin our ethnic description by the apportionment of the entire Balkan Peninsula into three linguistic

* 1877 d, pp. 382 *et seq.* especially.

divisions, viz., the Greeks, the Slavs, and the Tatar-Turks. Of these the second is numerically the most important, comprising the Serbo-Croatians, and, in a measure, the Bulgarians. As for the Albanians, the place of their language is still undetermined. Their distribution is manifested upon our map, to which we have already directed attention. These Slavs, with the Albanians, form not far from half the entire population.* Next in order come the Greeks, who constitute probably about a third of the total. As our map shows, this Greek contingent is closely confined to the seacoast, with the exception of Thessaly, which, as an old Hellenic territory, we are not surprised to find Greek in speech to-day. The Slavs contrasted with the Greeks, are primarily an inland population; the only place in all Europe, in fact, where they touch the sea is along the Adriatic coast. Even here the proportion of Greek intermixture is more considerable than our map would seem to imply. The interest of this fact is intensified because of the well-deserved reputation as admirable sailors which the modern Dalmatians possess. They are the only natural navigators of all the vast Slavic world. Everywhere else these peoples are noted rather for their aptitude for agriculture and allied pursuits. There is still another important point to be noted concerning the Greeks. They form not only the fringe of coast population in Asiatic as well as in European Turkey; they, with the Jews, monopolize the towns, devoting themselves to commerce as well as navigation. Jews and Greeks are the natural traders of the Orient. Thus is the linguistic segregation between Greek and Slav perpetuated, if not intensified, by seemingly natural aptitudes.

Perhaps the most surprising feature of our map of Turkey is the relative insignificance of the third element, the Turks. There were ten years ago, according to Couvreur ('⁹⁰), not above seven hundred and fifty thousand of them in all European Turkey. Bradaska ('⁶⁹) estimated that they were outnumbered by the Slavs seven to one. Our map shows that they form the dominant element in the population only in

* For statistics consult Sax, 1878; Lejean, 1882; White, 1886; Couvreur, 1890; or Behm and Wagner, serially in Petermann.

eastern Bulgaria, where they indeed constitute a solid and coherent body. Everywhere else they are disseminated as a small minority among the Greeks or Slavs. Even about Constantinople itself the Greeks far outnumber them. In this connection we must bear in mind that we are now judging of these peoples in no sense by their physical characteristics, but merely by the speech upon their lips. Nowhere else in Europe, as we shall soon see, is this criterion so fallacious as in the Balkan states. Religion enters also as a confusing element. Sax's original map, from which ours is derived, distinguishes these religious affiliations, as well as language. It was indeed the first to employ this additional test.* The maze of tangled languages and religions upon his map proved too complicated for our imitative abilities. We were obliged to limit our cartography to languages alone. The reader who would gain a true conception of the ethnic heterogeneity of Turkey should consult his original map.

The word Turk was for several centuries taken in a religious sense as synonymous with Mohammedan,† as in the Collect for Good Friday in its reference to "Jews, Turks, infidels, and heretics." Thus in Bosnia, where in the fifteenth century many Slavs were converted to Mohammedanism, their descendants are still known as Turks, especially where they use the Turkish speech in their religion. Obviously in this case no Turkish blood need flow in their veins. It is the religion of Islam, acting in this way, which has served to keep the Turks as distinct from the Slavs and Greeks as they are to-day. Freeman ‡ has drawn an instructive comparison in this connection between the fate of the Bulgars, who, as we shall see, are merely Slavonized Finns, and the Turks, who have steadily resisted all attempts at assimilation. The first came, he says, as "mere heathen savages (who) could be Christianized, Europeanized, assimilated" because no antip-

* Oppel, 1890, gives a good cartographical history of the Balkan states; more complete, however, in Sax, 1878, or Lejean, 1861 and 1882.

† Consult Taylor, 1864 (ed. 1893), p. 48; Von Luschan, 1889, p. 198; Sax, 1863, p. 97.

‡ 1877 d.

athy save that of race and speech had to be overcome. The Turks, in contradistinction, came "burdened with the half-truth of Islam, with the half-civilization of the East." By the aid of these, especially the former, the Turk has been enabled to maintain an independent existence as "an unnatural excrescence" on this corner of Europe.

Even using this word as in a measure synonymous with religious affiliations, the Turks form but a small and decreasing minority in the Balkan Peninsula. Couvreur (¹⁹⁰) again affirms that not over one third of the population profess the religion of Islam, all the remainder being Greek Catholics. This being so, the query at once suggests itself as to the reason for the continued political domination of this Turkish minority, Asiatic alike in habits, in speech, and in religion. The answer is certain. It depends upon that subtle principle, the balance of power in Europe. Is it not clear that to allow the Turk to go under, as numerically he ought to do, would mean to add strength to the great Slavic majority, affiliated as it is with Russia both by speech and religion? This, with the consent of the Anglo-Saxon and other Teutonic rivals of the Slav, could never be allowed. Thus does it come about that the poor Greek is ground between the upper Turkish and the nether Slavic millstone. "Unnatural disunion is the fate of the whole land, and the cuckoo-cry about the independence and integrity of the Ottoman Empire means, among the other evil things that it means, the continuance of this disunion." Let us turn from this distressing political spectacle to observe what light, if any, anthropology may shed upon the problem.

From the relative isolation of the Greeks at the extreme southern point of the peninsula, and especially in the Peloponnesus, it would seem that they might be relatively free from those ethnic disturbances which have worked such havoc elsewhere in the Orient. Nevertheless, Grecian history recounts a continuous succession of inroads from the landward north, as well as from the sea. It would transcend the limits of our study to attempt any detailed analysis of the early eth-

nology of Greece.* Examination of the relationship of the Pelasgi to their contemporaries we leave to the philologists. Positively no anthropological data on the matter exist. We are sufficiently grateful for the hundred or more well-authenticated ancient Greek crania of any sort which remain to us. It is useless to attempt any inquiry as to their more definite ethnic origin within the tribal divisions of the country.† The testimony of these ancient Greek crania is perfectly harmonious. All authorities agree that the ancient Hellenes were decidedly long-headed, betraying in this respect their affinity to the Mediterranean race, which we have already traced throughout southern Europe and Africa.‡ Whether from Attica, from Schliemann's successive cities excavated upon the site of Troy, or from the coast of Asia Minor; at all times from 400 B. C. to the third century of our era, it would seem proved that the Greeks were of this dolichocephalic type. Stephanos * gives the average cranial index of them all as about 75.7, betokening a people like the present Calabrians in head form; and, for that matter, about as long-headed as the Anglo-Saxons in England and America. More than this concerning the physical traits of these ancient Greeks we can not establish with any certainty. No perfect skeletons from which we can ascertain their statures remain to us. Nor can we be more positive as to their brunetness. Their admiration for blondness in heroes and deities is well known. As Dr. Beddoe ('93) says, almost all of Homer's leaders were blond or chestnut-haired, as well as large and tall. Lapouge || seems inclined to regard this as proof that the Greeks themselves

* Consult Fligier, 1881 a. Stephanos, 1884, p. 430, gives a complete bibliography of the older works. Cf. also Reinach, 1893 b, in his review of Hesselmeyer; and on the supposed Hittites, the works of Wright, De Cara, Conder, etc.

† Stephanos, 1884, p. 432, asserts the Pelasgi to have been brachycephalic, while Zampa, 1886 b, p. 639, as positively affirms the contrary view.

‡ Nicolucci, 1865 and 1867; Zaborowski, 1881; Virchow, 1882 and 1893; Lapouge, 1896 a, pp. 412-419; and Sergi, 1895 a, p. 75: are best on ancient Greek crania.

* 1884, p. 432.

|| 1896 a, p. 414.

were of this type, a broad interpretation which is scarcely justifiable.* As we shall see, every characteristic in their modern descendants and every analogy with the neighbouring populations, leads us to the conclusion that the classical Hellenes were distinctly of the Mediterranean racial type, little different from the Phoenicians, the Romans, or the Iberians.

Since the Christian era, as we have said, a successive down-pour of foreigners from the north into Greece has ensued.† In the sixth century came the Avars and the Slavs, bringing death and disaster. A more potent and lasting influence upon the country was probably produced by the slower and more peaceful infiltration of the Slavs into Thessaly and Epirus from the end of the seventh century onward. A result of this is that Slavic place-names to-day occur all over the Peloponnesus in the open country where settlements could readily be made. The most important immigration of all is probably that of the Albanians, who, from the thirteenth century until the advent of the Turks, incessantly overran the land. As a result the Albanian language is spoken to-day over a considerable part of the Peloponnesus, especially in its northeastern corner, where it attaches to the mainland. Only one little district has preserved, it may be added, anything like the original classical Greek speech. The Tzakons, in a little isolated and very rugged district on the eastern coast, include a number of classical idioms in their language.‡ Everywhere else, either in the names of rivers, mountains, and towns, or in borrowed words, evidence of the powerful influence of foreign infiltration occurs. This has induced Fallmerayer, Philippson, and others to assert that these foreigners have in fact submerged the original Greeks entirely.* Explicit rebuttal of this is offered by Hopf, Hertzberg, and Tozer, who admit the Slavic element, but still declare the Greeks to be Greek. This is a matter

* Stephanos, 1884, p. 439.

† Philippson, *Zur Ethnographie des Peloponnes*; Petermann, xxxvi, 1890, pp. 1-11, 33-41, with map, gives a good outline of these. Consult also Stephanos, 1884, pp. 422 *et seqq.*

‡ *Op. cit.*, p. 37.

* Cf. Couvreur, 1890, p. 514; and Freeman, 1877 d, p. 401.

concerning which neither philologist nor geographer has a right to speak; the anthropological testimony is the only competent one. To this we turn.

The modern Greeks are a very mixed people. There can be no doubt of this fact from a review of their history. In despite of this, they still remain distinctly true to their original Mediterranean ancestry. This has been most convincingly proved in respect of their head form.* The cephalic index of modern living Greeks ranges with great constancy about 81. This, it should be observed, betokens an appreciably broader head than in the case of the ancient Hellenes. Stephanos,† who has measured several hundred recruits, finds dolichocephaly to be most prevalent in Thessaly and Attica; while broad-headedness, so characteristic, as we shall see, of the Albanians and southern Slavs, is more accentuated toward the north, especially in Epirus. About Corinth also, where Albanian intermixture is common, the cephalic index rises above 83. The Peloponnesus has probably best preserved its early dolichocephaly, as we should expect. In Thessaly also are the modern Greeks as purely Mediterranean as in classic times. It is most suggestive of the heterogeneity of these modern Greeks, despite their clearly Mediterranean affinities, to examine the seriation of these measurements. Turn, for example, to that remarkable curve of von Luschan's for the Greeks of southwestern Asia Minor, reproduced on page 116. Its double apex, at two widely separated points, one denoting a pure Mediterranean dolichocephaly, the other a broader-headedness as great as that of the pure Albanians, we have already described.‡ There can be no doubt that in Asia Minor, at least, the word Greek is devoid of any racial

* Weisbach, 1882; Nicolucci, 1867; Apostolides in *Bull. Soc. d'Anth.*, 1883, p. 614; Stephanos, 1884; Neophytos, 1891; Lapouge, 1896 a, p. 419. Von Luschan, 1889, p. 209, illustrates the similarity between the Greek and the Bedouin skull.

† 1884, p. 434.

‡ Von Luschan, 1889, p. 206; 1891, p. 39. Stephanos's series, 1884, p. 435, has three distinct culminations, at 78, 82, and 84 respectively. Neophytos' series from northwest Asia Minor is equally irregular; *op. cit.*, p. 29.

significance. It merely denotes a man who speaks Greek, or else one who is a Greek Catholic, converted from Mohammedanism. Greek, like Turk, has become entirely a matter of language and religion, as these people have intermingled. Thus in the southwest of Asia Minor, where Semitic influences have been strong, von Luschan * makes the pregnant observation that the Greeks often look like Jews, although they speak Turkish. The climax of physical heterogeneity is betrayed in Neophytos' series of Greeks from northwestern Asia Minor, where he found not a single individual out of a hundred and fifty with a cephalic index below 80. Here is proof positive that no Greeks of pure Mediterranean descent remain to represent the primitive Hellenic type in that region.

Whatever may be thought of the ancients, the modern Greeks are strongly brunet in all respects. Ornstein ⁽⁷⁰⁾ found less than ten per cent of light hair, although blue and gray eyes were characteristic of rather more than a quarter of his seventeen hundred and sixty-seven recruits. This accords with expectation; for among the Albanians, next neighbours and most intrusive aliens in Greece, light eyes are quite common. Weisbach's ⁽⁸²⁾ data confirm this, ninety-six per cent of his Greeks being pure brunets.† In stature these people are intermediate between the Turks and the Albanians and Dalmatians, which latter are among the tallest of Europeans.‡ In facial features Nicolucci's ⁽⁶⁷⁾ early opinion seems to be confirmed, that the Greek face is distinctively orthognathous—that is to say, with a vertical profile, the lower parts of the face being neither projecting nor prominent. The face is generally of a smooth oval, rather narrow and high, especially as compared with the round-faced Slavs. The nose is thin and high, perhaps more often finely chiselled and straight in profile. The facial features seem to be well demonstrated

* 1889, p. 209.

† Neophytos finds 82.5 per cent of dark-brown or black hair, only 5 per cent blond or red; while 17 per cent of the eyes were dark among 200 individuals.

‡ Weisbach, 1882, p. 73, gives averages as follows: Greeks, 1.65 metres; Turks, 1.62 metres; Albanians, 1.66 metres; and Dalmatians, 1.69 metres.

in the classic statuary, although it is curious, as Stephanos observes, that these ideal heads are distinctly brachycephalic. Either the ancient sculptors knew little of anthropology, or else we have again a confirmation of our assertion that, however conscious of their peculiar facial traits a people may be, the head form is a characteristic whose significance is rarely recognised.

Linguistically the pure Slavs in the Balkan states comprise only the Serbo-Croatians, who divide the ancient territory of Illyria with the Arnauts or Albanians. The western half of the peninsula, rugged and remote, has been relatively little exposed to the direct ravages of either Finnic or Turkish invaders. Especially is this true of Albania. Nearly all authorities since Hahn are agreed in identifying these latter people—who call themselves Skipetars, by the way—as the modern representatives of the ancient Illyrians.* They are said to have been partly Slavonized by the Serbo-Croatians, who have been generally regarded as descendants of the settlers brought by the Emperor Heraclius from beyond the Save. This he is said to have done in order to repopulate the lands devastated by the Avars and other Slavs who, Procopius informs us, first appeared in this region in the sixth century of our era. The settlers imported by Heraclius came, we are told, from two distant places: Old Servia, or Sorabia, placed by Freeman in modern Saxony; and Chrobatia, which, he says, lies in southwestern Poland.† According to this view, the Serbo-Croatians are an offshoot from the northern Slavs, being divided from them to-day by the intrusive Hungarians; while the Albanians alone are truly indigenous to the country.

The recent political fate of these Illyrian peoples has been quite various, the Albanians alone preserving their independence continually under the merely nominal rule of the Turks. Religion, also, has affected the Slavs in various ways. Servia

* Glöck, 1897 a; Lejean, 1882, p. 628; Bradaska, 1869. On early ethnology, consult Fligier, 1876; Tomaschek, 1880 and 1893.

† Freeman, 1877 d, pp. 385, 404 *et seq.*; Lejean, 1882, pp. 216–222, and especially Howorth, 1878–81.

owes much of its present peace and prosperity to the practical elimination of the Moslems. Bosnia is still largely Mohammedan, with about a third of its people, according to White⁽⁵⁶⁾, still professing that religion.* The significance of this is increased, it being mainly the upper classes in Bosnia, according to Freeman, who embraced the religion of Islam in order to preserve their power and estates. The conversion was not national, as in the case of the Albanians. Thus social and religious segregation work together to produce discord. With multitudes of Jews monopolizing the commerce of the country and the people thus divided socially, as well as in religion, the political unrest in Bosnia certainly seems to require the strong arm of Austrian suzerainty to preserve order. In this connection it is curious to note Sax's⁽⁶³⁾ observation as to the physical peculiarities of these Mohammedans in Bosnia, who, as we have said, call themselves Turks. According to him a process of selection has evolved a purer "Caucasian" type, greater regularity of features, along with other traits. Certainly the force of religion as a factor in artificial selection can not be denied, as in this case.

Whatever the theory of the historians as to origins may be, to the anthropologist the modern Illyrians—Serbo-Croatians and Albanians alike—are physically a unit. More than this, they constitute together a distinct type so well individualized that Deniker⁽⁶⁸⁾, in his recent masterly analysis, honours them as a separate Adriatic, or, as he calls it, "Dinaric" race. Our knowledge of the region, considering its remoteness, is quite complete, owing especially to the zeal of Dr. Weisbach.† Two physical characteristics render this ethnic group distinctive: first, that it comprises some of the tallest men in the world, comparing favourably with the Scotch in this respect;

* Von Schubert, 1893, p. 133, places the estimate much higher than this.

† To him I am grateful for the most courteous assistance both in the collection of material and the loan of photographs. On the Albanians, consult Zampa, *Anthropologie Illyrienne*, 1886 b, and Glück, 1896 b and 1897 a; on the Serbo-Croatians, including Dalmatia, Weisbach, 1877, 1884, and 1895 a, the latter with especial reference to Bosnia; on Herzegovina, Weisbach, 1889 b. For Servia by itself no separate data exist; and the same may be said of Montenegro.

and, secondly, that these Illyrians tend to be among the broadest-headed people known. In general, it would appear that the people of Herzegovina and northern Albania possess these traits to the most notable degree; while both in the direction of the Save and Danube and of the plains of Thessaly and Epirus they have been attenuated by intermixture. Presumably also toward the east among the Bulgarians in Macedonia and Thrace these characteristics diminish in intensity. Thus, for example, while the Herzegovinians, measured by Weisbach, yielded an average stature of 5' 9" (1.75 metres), the Bosnians were appreciably shorter (1.72 metres),* and the Dalmatians and Albanians were even more so (1.68 metres). Nevertheless, as compared with the Greeks, Bulgars, Turks, or Roumanians, even the shortest of these Slavs stood high. The superiority in stature of the whole body of the southern Slavs over the Russians, Poles, and others of the northern group is very noticeable. We have already spoken of it in another connection.† It would apparently preclude the possibility of this as an imported Slavic trait; rather does it seem to be indigenous to the country. From this specific centre outward, especially around the head of the Adriatic Sea, over into Venetia, spreads the influence of this giantism. It confirms, as we have said, the classical theory of an Illyrian cross among the Venetians, extending well up into the Tyrol.

As for the second trait, the exaggerated broad-headedness, it too, like the tallness of stature, seems to centre about Herzegovina and Montenegro. Thus at Scutari, in the corner of Albania near this last-named country, Zampa ‡ found a cranial index of 89; in Herzegovina the index upon the living head ranges above 87. It would be difficult to exceed this brachycephaly anywhere in the world. The square foreheads and broad faces of the people correspond in every way to the shape of the heads. Its significance appears immediately on comparison with the long oval faces of the Greeks. This broad-headedness diminishes slightly toward the north, probably by reason of the Serbo-Croatian intermixture; * nev-

* Capus, 1895, confirms it.

‡ 1886 b, p. 637.

† Pages 98 and 350 *supra*.

* Cf. map at p. 340 *supra*.

ertheless, it still maintains the very respectable average of 85.7 among the 3,803 Bosnians measured by Weisbach.* It falls more rapidly in the direction of Greece, showing how strong is the influence of that Mediterranean element among the Illyro-Greeks about Epirus. It seems to be a persistent trait. The Albanian colonists, studied by Livi and Zampa † in Calabria, still, after four centuries of Italian residence and intermixture, cling to many of their primitive characteristics, notably their brachycephaly and their relative blondness. This persistency again leads us to regard these traits as properly indigenous to the land and the people, not lately acquired by infusion of foreign blood from abroad.

One more trait of the Balkan Slavs remains for us to note. The people are mainly pure brunets, as we might expect; but they seem to be less dark than either the Greeks or the Turks. Especially among the Albanians are light traits by no means infrequent. In this respect the contrast with the Greeks is apparent, as well as with the Dalmatians along the coast and the Italians in the same latitude across the Adriatic.‡ Weisbach * found nearly ten per cent of blond and red hair among his Bosnian soldiers, while about one third of the eyes were either gray or blue. The Herzegovinians are even lighter than the Bosnians, almost as much so as the Albanians. From consideration of these facts it would appear as if the harsh climate of these upland districts had been indeed influential in setting off the inland peoples from the Italian-speaking Dalmatians along the coast. For among the latter brunetness certainly increases from north to south,|| conformably to the general rule for the rest of Europe; while in the interior, blondness apparently moves in the contrary direction, culminating in the mountain fastnesses of northern Albania and the vicinity. On the whole, we find also in this trait of brunetness com-

* 1895 a, p. 228. Glück's average for thirty Albanians is only 82.6. Weisbach, 1897 a, p. 84, finds the Bosnian brachycephaly to-day quite paralleled in crania from the early historic period.

† 1886 b and 1886 a, p. 174 respectively.

‡ Zampa, 1886 b, p. 636; Livi, 1896 a, p. 175.

* 1895 a, p. 210.

|| Weisbach, 1884.

petent evidence to connect these Illyrians with the great body of the Alpine race farther to the west. We have also another illustration of its determined predilection for a mountainous habitat, in which it stoutly resists all immigrant tendencies toward variation from its primitive type.

The Osmanli Turks, who politically dominate the Balkan Peninsula notwithstanding their numerical insignificance, are mainly distinctive among their neighbours by reason of their speech and religion.* Turkish is the westernmost representative of a great group of languages, best known, perhaps, as the Ural-Altaic family. This comprises all those of northern Asia even to the Pacific Ocean, together with that of the Finns in Russian Europe. Its members are by no means unified physically. All varieties of type are included within its boundaries, from the tall and blond one which we have preferred to call Finnic,† prevalent about the Baltic; to the squat and swarthy Kalmucks and Kirghez, to whom we have in a physical sense applied the term Mongols. The Turkish branch of this great family of languages is to-day represented in eastern Europe by two peoples, whom we may roughly distinguish as Turks and Tatars.‡ The term Tatar, it should be observed, is entirely of European invention, like the similar word Hungarian. The only name recognised by the Osmanli themselves is that of Turk. This, by the way, seems quite aptly to be derived from a native root meaning "brigand," according to Chantre (1895). They apply the word Tatar solely to the north Asiatic barbarians. By general usage this latter term, Tatar, has to-day become more specifically applied by ethnologists to the scattered peoples of Asiatic descent and Turkish speech who are mainly to be found in Russia and Asia Minor.*

* Lejean, 1882, p. 453, gives good descriptive material. Vámbéry, 1885, divides the Ural-Altaic family into five groups—viz., (1) Samoyed, (2) Tungus, (3) Finnic, (4) Mongolic, (5) Turkish or Tatar.

† Page 360 *supra*.

‡ On terminology consult Vámbéry, 1885, p. 60; Chantre, 1895, p. 199; Keane, 1897, p. 302.

* Vámbéry's (1885) further classification of the Tatar-Turkish subdivision is as follows: (a) Siberian; Yakuts, etc.; (b) Central Asiatic;

Of the two principal physical types to-day comprised within the limits of the Ural-Altaic languages, the Turks and Tatars seem to be affiliated with the Mongol rather than the Finn, not physically alone, but in respect of language as well.* As a matter of fact they are much nearer other Europeans in original type than most people imagine. Their nearest relatives in Asia seem to be the Turkoman peoples, who, to the number of a million or more, inhabit the deserts and steppes of western Asia. It was from somewhere about this region, in fact, as we know, that the hordes of the Huns under Attila, and those of Genghis Khan and Tamerlane, set forth to the devastation of Europe. The physical type of these inhabitants of Turkestan has been fairly well established by anthropologists. It persists throughout a great multitude of tribes of various names, among whom the Kara-Kirghez, Uzbegs, and Kiptchaks are prominent.† At page 44 we have represented these Turkoman types. The most noticeable feature of the portraits is the absence of purely Mongol facial characteristics. Except in the Kara-Kirghez the features are distinctly European. There is no squint-eye; the nose is well formed; the cheek bones are not prominent, although the faces are broad; and, most important of all, the beard is abundantly developed, both in the Uzbeg and the Kiptchak. The Kara-Kirghez, on the other hand, betrays unmistakably his Mongol derivation in every one of these important respects. One common trait is possessed by all three: to wit, extreme brachycephaly, with an index ranging from 85 to 89.‡ The flatness of the occiput is very noticeable in our portraits in every case, giving what Hamy calls a "cuboid aspect" to the skull.*

Turkomans; (c) Volga: Chuvashes and Bashkirs; (d) Pontus: as in Crimean and Nogai Tatars; (e) Western: Osmanli and Azerbeidjian.

* Vámbéry, 1885, p. 63.

† Complete data on these people will be found in Ujsalvy, 1878-'80, iii, pp. 7-50; Les Aryens, etc., 1896 a, pp. 51, 385-434; Bogdanof, 1888: Yavorski, 1897.

‡ Yavorski, 1897, p. 193, gets an index of 75.6 for his 191 observations; every other authority confirms the opposite tendency.

* *Considérations générales sur les races jaunes.* L'Anth., vi, 1895, p. 247.

These portraits, if typical, should be enough to convince us that the Turkoman of the steppes about the Aral and Caspian Seas is far from being a pure Mongol, even in his native land, although a strain of Mongol blood is apparent in many of their tribes. He is not to be classed with the peoples depicted in our series at page 358, in other words.

The fact is that the Asiatic Turkomans, whence our Osmanli Turks are derived, are a highly composite type. A very important element in their composition is that of certain brachycephalic Himalayan peoples, the Galchas and Tadjiks, who are for all practical purposes identical with the Alpine type of western Europe. In their accentuated brachycephaly, their European facial features, their abundance of wavy hair and beard, and finally in their intermediate colour of hair and eyes,* these latter peoples in the Pamir resemble their European prototypes. So close is this affiliation that we shall see in our next chapter that the occurrence of this type in western Asia is the keystone in any argument for the Asiatic origin of the Alpine race of Europe. The significance of it for us in this connection, is that it explains the European affinity of many of the Turkoman tribes, who are more strongly Alpine than Mongol in their resemblances. It is highly important, we affirm, to fix this in mind; for the prevalent opinion seems to be that the Turks in Europe have departed widely from their ancestral Asiatic type, because of their present lack of Mongol characteristics, such as almond eyes, lank black hair, flat noses, and high cheek bones. The chances of physical resemblance really depend upon a decision as to the particular origin of the progenitors of these present Turks. If they are indeed directly derived from the pure Kirghez, as Vámbéry † asserts, we might expect all manner of Mongol

* Ujfalvy (*Les Aryens, etc.*, 1896 a, p. 428) found chestnut hair most frequent, with 27 per cent of blondness, among some of the Tadjiks. The eyes are often greenish gray or blue (Ujfalvy, 1878-'80, iii, pp. 23-33, tables).

† 1885, p. 382. It is curious to notice that the nearest Asiatic language to the Turkish occurs among the Yakuts, in northern Siberia. They are unmistakable Mongols.

traits. If, on the other hand, they originally were Turkomans, it would seem that we have no right to expect any such phenomena even in Asia itself; to say nothing of the Osmanli Turks who have for generations, through Circassian wives and slaves, bred into the type of the other peoples of eastern Europe.

Either the Osmanli Turks were never Mongols, or they have lost every trace of it by intermixture. Our portraits on the opposite page give little indication of Asiatic derivation except in their accentuated short- and broad-headedness. This is considerably more noticeable in Asia Minor than in European Turkey.* West of the Bosphorus the Turks differ but little from the surrounding Slavs in head form. They have been bred down from their former extreme brachycephaly, which still rules to a greater degree in Asia Minor. In our portraits from this region the absence of occipital prominence is very marked. In addition to this, the Turks are everywhere, as Chantre^(**) observes, "incontestably brunet."† The hair is generally stiff and straight. The beard is full. This latter trait is fatal to any assumption of a persistence of Kirghez blood, or of any Mongolic extraction, in fact. The nose is broad, but straight in profile. The eyes are perfectly normal, the oblique Mongol type no more frequent than elsewhere.‡ In stature the Turks are rather tall, especially those observed by Chantre: * but in this respect social conditions are undoubtedly of great effect. On the whole, then, we may consider that the Turks have done fairly well in the preservation of their primitive characteristics. Chantre especially finds them quite

* On the anthropology of European Turks, Weisbach, 1873, is the only authority. He found an average cephalic index of 82.8 in 148 cases. Elisyeef, 1890-'91, and Chantre, 1895, pp. 206-211, have worked in Anatolia, with indices of 86 for 143 individuals, and 84.5 for 120 men, respectively. Both Von Luschan and Chantre give a superb collection of portrait types in addition.

† Elisyeef's tables show a blondness by no means inconsiderable

‡ Von Luschan, 1880, p. 212, finds less than one per cent in Lycia. Cf. Chantre, 1895, p. 207.

* 1895, p. 208. Over half of his 120 were above 1.70 metres; the average 1.71 metres. Elisyeef obtained a lower average of 1.67 metres.

homogeneous, considering all the circumstances. They vary according to the people among whom their lot is cast. Among the Armenians they become broader-headed, while among the Iranian peoples—Kurds or Persians—the opposite influence of intermixture at once is apparent.

A sub-type of the Turk occurs among the nomads, who, under the name of Jurüks and Iverveks, still roam through central Anatolia. The name of these tribes signifies “wanderers.” Little is known of them, save that they are of Turkish speech and have entered Asia Minor in late historic times.* One of these is depicted in our upper portraits herewith. A difficulty in the analysis of these peoples lies in the prevalence of customs of cranial deformation among them. All that is certain is that they are very brunet, but in no wise Mongoloid. Their resemblance to the Gypsies, of supposedly Hindoo extraction, is rather close, as comparison of our portraits in this series will make apparent. Another Gypsy of distinctly Indian type from Asia Minor is represented in the series at page 422.†

Before taking leave of the Turkish peoples a word should be added concerning the Tatars. No other people of Europe have scattered so far and wide, preserving an identity of language meanwhile. They fall, in the main, into three groups: One about Kazan in eastern Russia, known as the Volga Tatars (see map, page 362); a second in and about the Crimean peninsula; and, thirdly, that centring about the Caucasus mountains. These last, in northern Caucasia, are known as Nogays or Koumyks; those in the south, constituting the Azerbeidjian or Iranian Tatars. The first are aggregated in a solid body; the second seem to be dispersed among a host of Armenians, Kurds, Persians, and other peoples. Their distribution is in part shown upon our map of Caucasia at page 439. This latter group of Tatars in Russian Armenia number to-day upward of a million souls. They are popularly sup-

* Vámbéry, 1885, p. 603: Von Luschan, 1889, pp. 213-217; Chantre, 1895, p. 200.

† Glück (1897 a), Von Luschan (1889), Schwicker (1883), describe these Gypsies and their languages and customs.

posed to represent an element which was left behind during the historic invasions of the Seljukian Turks into Europe.* The contrast between the two groups north and south of the Caucasus is very marked. The Nogays and Koumyks, from their proximity to the Kirghez and the Kalnucks, are strongly Mongolian in aspect and in head form.† The Azerbeidjians, on the other hand, have become much Iranized by contact with the dolichocephalic peoples of this region. This endows them with the long oval face and smooth features of the Persians and Kurds.‡ Despite these differences, both Nogays and Azerbeidjians adhere closely to their primitive Tatar speech. Long-continued separation has been powerless to affect them in this respect.

The Crimean or Pontus Tatars offer us the same example of a community of language, coupled with a great diversity of physical type. Radde distinguishes three groups among them: one in the steppes just north of the peninsula, which still preserves many of its Asiatic characteristics; a second, the so-called "hill Tatars," which is said to be more mixed; and a third known as the coast Tatars. This last group has become entirely Europeanized. Our portraits of these coast Tatars at pages 364 and 422 make this apparent at once. We must suppose strong admixture among them of Greek, Gypsy, and possibly also of Gothic blood.* Similar contrasts occur among the Volga Tatars, dependent upon the particular Finnic, Mongol, or Russian element, with whom they happen to have been thrown in contact.|| As for the Tatars in the Dobrudsha district at the mouth of the Danube, shown upon our map of the Balkan states, we are unable to give information. Finally, as a last and complete example of Europeanized Tatars, still

* Vámbéry, 1885, pp. 560-570; Chantre, 1885-'87, iv, pp. 248 *et seq.*, and 1895, pp. 177-189; as well as Wyrubof, 1890.

† Cf. Sviderski, 1898, on the Koumyks.

‡ The cephalic index of the Nogays is about 86; of the Azerbeidjians, 78; of the Crimeans, 86; of the Don, 79. Cf. Yavorski's table, p. 193.

* Consult A. N. Kharuzin, 1890 a, b, and d; and also Merezkovski, 1881.

|| Benzengre, 1880, on the Tatars of Kassimof, is the only standard on these peoples.

Turkish in speech, we may instance the small colony in Lithuania. Even less of the Mongol remains in this case than among the shore Tatars of the Crimea.* The utter futility of attempting to correlate physical characteristics and language are again illustrated for us among these people to an extreme degree.

The Bulgarians are of interest because of their traditional Finnic origin and subsequent Europeanization. This has ensued through conversion to Christianity and the adoption of a Slavic speech. Our earliest mention of these Bulgars would seem to locate them between the Ural Mountains and the Volga.† The district was, in fact, known as Old Bulgaria till the Russians took it in the fifteenth century. As to which of the many existing tribes of the Volga Finns (see map, page 362) represent the ancestors of these Bulgarians, no one is, I think, competent to speak. Pruner Bey seems to think they were the Ostiaks and Voguls, since emigrated across the Urals into Asia; ‡ the still older view of Edwards and Klaproth made them Huns; * Obédénare, according to Virchow ("*"), said they were Samoyeds or Tungus; while Howorth and Beddoe claim the honour for the Chuvashes.|| These citations are enough to prove that nobody knows very much about it in detail. All that can be affirmed is that a tribe of Finnic-speaking people crossed the Danube toward the end of the seventh century and possessed themselves of territory near its mouth. Remaining heathen for two hundred odd years, they finally adopted Christianity and under their great leaders, Simeon and Samuel, became during the tenth century a power in the land. Their rulers, styling themselves "Emperors of the Slavs," fought the Germans; conquered the Magyars as well as their neighbours in Thrace, receiving tribute from Byzantium; became allies of Charlemagne; and then subsided under the rule of the

* Superb portraits of these are given in the *Dnevnik*, Society of Friends of Natural Science, etc., Moscow, 1890, at column 63.

† Read Pruner-Bey, 1860 b; Obédénare; Howorth, 1881; and especially Kanitz, 1875, for historic details.

‡ See note, p. 361 *supra*.

* Cf. Vámbéry, 1882, pp. 50-60.

|| 1881, p. 223, and 1893, p. 49, respectively.

Turks. Since the practical demise of this latter power they have again taken courage, and in their semi-political independence in Bulgaria and northern Roumelia rejoice in an ever-rich and growing literature and sense of nationality.

Bulgarian is spoken, as our map at page 403 indicates, far outside the present political limits of the principality—indeed, over about two thirds of European Turkey. Gopčević * has made a brilliant attempt to prove that Macedonia, shown by our map and commonly believed to be at bottom Bulgarian, is in reality populated mainly by Serbs. The weakness of this contention was speedily laid bare by his critics. Political motives, especially the ardent desire of the Servians to make good a title to Macedonia before the disruption of the Ottoman Empire, can scarcely be denied. Servia needs an outlet on the Mediterranean too obviously to cloak such an attempted ethnic usurpation. As a fact, Macedonia, even before the late Greco-Turkish war, was in a sad state of anarchy. The purest Bulgarian is certainly spoken in the Rhodope Mountains; there are many Roumanians of Latin speech; the Greeks predominate all along the sea and throughout the three-toed peninsula of Salonica; while the Turks are sparsely disseminated everywhere. And as for religion—well, besides the severally orthodox Greeks and Turks, there are in addition the Moslem and apostate Bulgarians, known as Pomaks, who have nothing in common with their Greek Catholic fellow-Bulgars, together with the scattering Pindus Roumanians and Albanians in addition. This interesting field of ethnographic investigation is, even at this late day, practically unworked. As Dr. Beddoe ("⁹³") writes—and his remarks are equally applicable to Americans—"here are fine opportunities for any enterprising Englishman with money and a taste for travel and with sufficient brains to be able to pick up a language. But, alas! such men usually seem to care for nothing but 'killing something.'"

The Roumanians, or Moldo-Wallachians, are not confined within the limits of that country alone. Their language and

* 1889 a. with map, in Petermann, 1889 b. Cf. criticism of his contention by Oppel, 1890; Couvreur, 1890, p. 523; and Ghennadiéff, 1890, p. 663.

nationality cover not only the plains along the Danube and the Black Sea; but their speech extends beyond the Carpathian Mountains over the entire southeastern quarter of Hungary and up into the Bukovina. (See map at page 429.) Transylvania is merely a German and Magyar islet in the vast extent of the Roumanian nation. There are more than a third as many Roumanians, according to the census of 1890, as there are Magyars in the Hungarian kingdom.* Politically it thus happens that these people are pretty well split up in their allegiance. Nor can this be other than permanent. For the Carpathian Mountains, in their great circle about the Hungarian basin, cut directly through the middle of the nation as measured by language. This curious circumstance can be accounted for only on the supposition that the disorder in the direction of the Balkan Peninsula incident upon the Turkish invasion, forced the growing nation to expand toward the northwest, even over the natural barrier interposed between Roumania proper and Hungary. Geographical law, more powerful than human will, ordains that this latter natural area of characterization—the great plain basin of Hungary—should be the seat of a single political unit. There is no resource but that the Roumanians should in Hungary accept the division from their fellows over the mountains as final for all political purposes.†

The native name of these people is Vlach, Wallach, or Wallachian. Various origins for the name have been assigned. Lejean (⁸²) asserts that it designates a nomad shepherd, in distinction from a tiller of the soil or a dweller in towns. Picot (⁷⁵) voices the native view as to ethnic origins by deriving the word Wallach from the same root as Wales, Walloon, etc., applied by the Slavs and Germans to the Celtic peoples as "foreigners."‡ This theory is now generally discredited. Obédénare's (⁷⁶) attempt to prove such a

* Jekelfalussy, 1897, with his map of nationalities, 1885, is the best authority. Cf. also Auerbach, 1898, pp. 285-297.

† Auerbach, 1898, p. 286, gives a full summary of the rival controversy between Roumanians and Hungarians as to priority of title in Transylvania.

‡ Cf. Taylor, *Words and Places*, p. 42.

Celtic relationship has met with little favour.* The western name Roumanian springs from a similarly exploded hypothesis concerning the Latin origin of these people. To be sure, Roumanian is distinctly allied to the other Romance languages in structure. It is an anomaly in the eastern Slavic half of Europe. The most plausible explanation for this phenomenon, and one long accepted, was that the modern Roumanians were descendants of the two hundred and forty thousand colonists whom the Emperor Trajan is said to have sent into the conquered province of Dacia. The earlier inhabitants of the territory were believed to have been the original Thracians. Since no two were agreed as to what the Thracians were like, this did not amount to much. Modern common sense has finally prevailed over attempts to display philological erudition in such matters. Freeman † expresses this clearly. Roumania, as he says, lay directly in the path of invasion from the East; the hold of the Romans upon Dacia was never firm; the province was the first to break away from the Empire; and finally proof of a Latinization only at the late date of the thirteenth century is not wanting.‡ The truth seems to be that two forces were contending for the control of eastern Europe. The Latin could prevail only in those regions which were beyond the potent influence of Greece. Dacia being remote and barbarian, this Latin element had a fighting chance for survival, and succeeded.

Our ethnic map at page 403 shows a curious islet of Roumanian language in the heart of the Greek-speaking territory of Thessaly. There is little sympathy between the two peoples, according to Hellène ⁽¹⁸⁹⁰⁾. The occurrence of this Roumanian colony, so far removed from its base, has long puzzled ethnographers. Some believe the peoples were separately Romanized *in situ*; others that they were colonists from Dacia in the ninth and tenth centuries. At all events, these Pindus Roumanians are too numerous—over a million souls—to be

* Cf. Picot, 1883, in his review of Tocilescu; and Rosny, 1885, p. 83.

† 1879, p. 217. Cf. also Auerbach, 1898, p. 286.

‡ Cf. Obédénaire, 1876, p. 350; Slavici, 1881, p. 43; Rosny, 1885, p. 27; Hellène, 1890, p. 190.

neglected in any theory as to the origin of their language.* Another islet of quasi-Roumanian speech occurs in Istria, on the Adriatic coast. Its origin is equally obscure.†

It is no contradiction that, in spite of the fact of our exclusion of Roumania from the Balkan Peninsula owing to its Latin affinities, thereby seeming to differentiate it sharply from Bulgaria, the latter of Finnic origin; that we now proceed to treat of the physical characteristics of the two nationalities, Roumanian and Bulgarian, together. Here is another example of the superficiality of language, of social and political institutions. They do not concern the fundamental physical facts of race in the least. At the same time we again emphasize the necessity of a powerful corrective, based upon purely natural phenomena, for the tendency of philologists and ethnographers to follow their pet theories far afield, giving precedence to analogies of language and customs over all the patent facts of geographical probability. Let us look at it in this light. Is there any chance that, on the opposite sides of the Danube, a few Finns and a few Romans respectively interspersed among the dense population which so fertile an area must have possessed, even at an early time, could be in any wise competent to make different types of the two? There is nothing in our confessedly scanty anthropological data to show it, at all events. We must treat the lower Danubian plain as a unit, irrespective of the bounds of language, religion, or nationality.

It was long believed that the Bulgarians were distinctive among the other peoples of eastern Europe by reason of their long-headedness. All the investigations upon limited series of crania pointed in this direction.‡ This naturally was interpreted as a confirmation of the historic data as to a Finnic Bulgarian origin very distinct from that of the broad-headed Slavs. Several recent discoveries have put a new face upon the matter. In the first place, researches of Dr. Bassanović, of Varna, upon several thousand recruits from western Bul-

* Picot, 1875, pp. 390 *et seq.*

† Auerbach, 1898, p. 211.

‡ Kopernicki, 1875 b. Beddoe, 1879; Virchow, 1886 a; Malief, in his Catalogue of 1888, gives details for thirty-eight Bulgarian crania also.

garia yielded an average cephalic index of 85.* This is nearly ten units above the results of the earlier observers. It proves that the west Bulgarians at least even outdo many of the Balkan Slavs in their broad-headedness. At the same time it appears that the older authorities were right, after all, in respect of the eastern Bulgarians. Among them, and also over in eastern Roumelia, the cephalic index ranges as low as 78. Our map at page 340 expresses this relation. The long oval-faced Bulgarians among our portraits are probably of this dolichocephalic type. Their contrast facially with the broad-headed Roumanians is very marked. Thus it is established that the Bulgarian nation is by no means a unit in its head form. We should add also that, although not definitely proved as yet, it is highly probable that similar variations occur in Roumania. In the Bukovina brachycephaly certainly prevails. Our square-faced Roumanians facing page 410 may presumably be taken to represent this type. This broad-headedness decreases apparently toward the east as we leave the Carpathian Mountains, until along the Black Sea it seems, as in Bulgaria, to give way to a real dolichocephaly.†

How are we to account for the occurrence of so extended an area of long-headedness all over the great lower Danubian plain? Our study of the northern Slavs has shown that no such phenomenon occurs there among the Russians. It certainly finds no counterpart among the southern Slavs or the Turks. The only other people who resemble these Bulgars in long-headedness are the Greeks. Even they are far separated; and, in any event, very impure representatives of the type. What shall we say? Two explanations seem to be possible, as Dr. Beddoe observes.‡ Either this dolichocephaly is due to the Finnicism of the original Bulgars; or else it represents a characteristic of the pre-Bulgarian population of the Danube basin. He inclines with moderation to the former view. The other

* 1891, p. 30. Dr. Bassanović has most courteously sent me a sketch map showing the results of these researches. Deniker, 1897, p. 203, and 1898 a, describes them also.

† Deniker, 1898 a, p. 122; Weisbach, 1877, p. 238; Rosny, 1885, p. 85.

‡ 1879, p. 233.

horn of the dilemma is chosen by Anutchin * in a brilliant paper at the late Anthropological Congress at Moscow. According to his view—and we assent most heartily to it—this dolichocephaly along the Black Sea represents the last survival of a most persistent trait of the primitive inhabitants of eastern Europe. Referring again to our study of Russia,† we would call attention to the occurrence of a similar long-headed race underlying all the modern Slavic population. We shall be able to prove also that such a primitive substratum occurs over nearly all Europe. It has been unearthed not far from here, for example, at Glasinac in Bosnia.‡ When archæological research is extended farther to the east, new light upon this point may be expected. It will be asked at once why this primitive population should still lie bare upon the surface, here along the lower Danube, when it has been submerged everywhere else in central Europe. Our answer is ready. Here in this rich alluvial plain population might, expectedly, be dense at a very early period. As we have observed before, such a population, if solidly massed, opposes an enormous resistance to absorption by new-comers. A few thousand Bulgarian invaders would be a mere drop in the bucket of such an aggregation of men. We are strengthened in this hypothesis that the dolichocephaly of the Danubian plain is primitive, by reason of another significant fact brought out by Bassanovič.* Long-headedness is overwhelmingly more prevalent among women than among men. The former represent more often what Bassanovič calls the “dolichocephalic Thracian type.” The oval-faced Bulgarian woman among our portraits would seem to be one of these. Now, in the preceding chapter, we have sought to illustrate the principle that in any population the primitive type persists more often in the women. The bearing of such a law in the case of the Bulgars would seem to

* 1893, p. 282.

† Page 352 *supra*. Cf. especially Bogdanof, 1893, p. 1.

‡ *Vide* p. 463 *infra*.

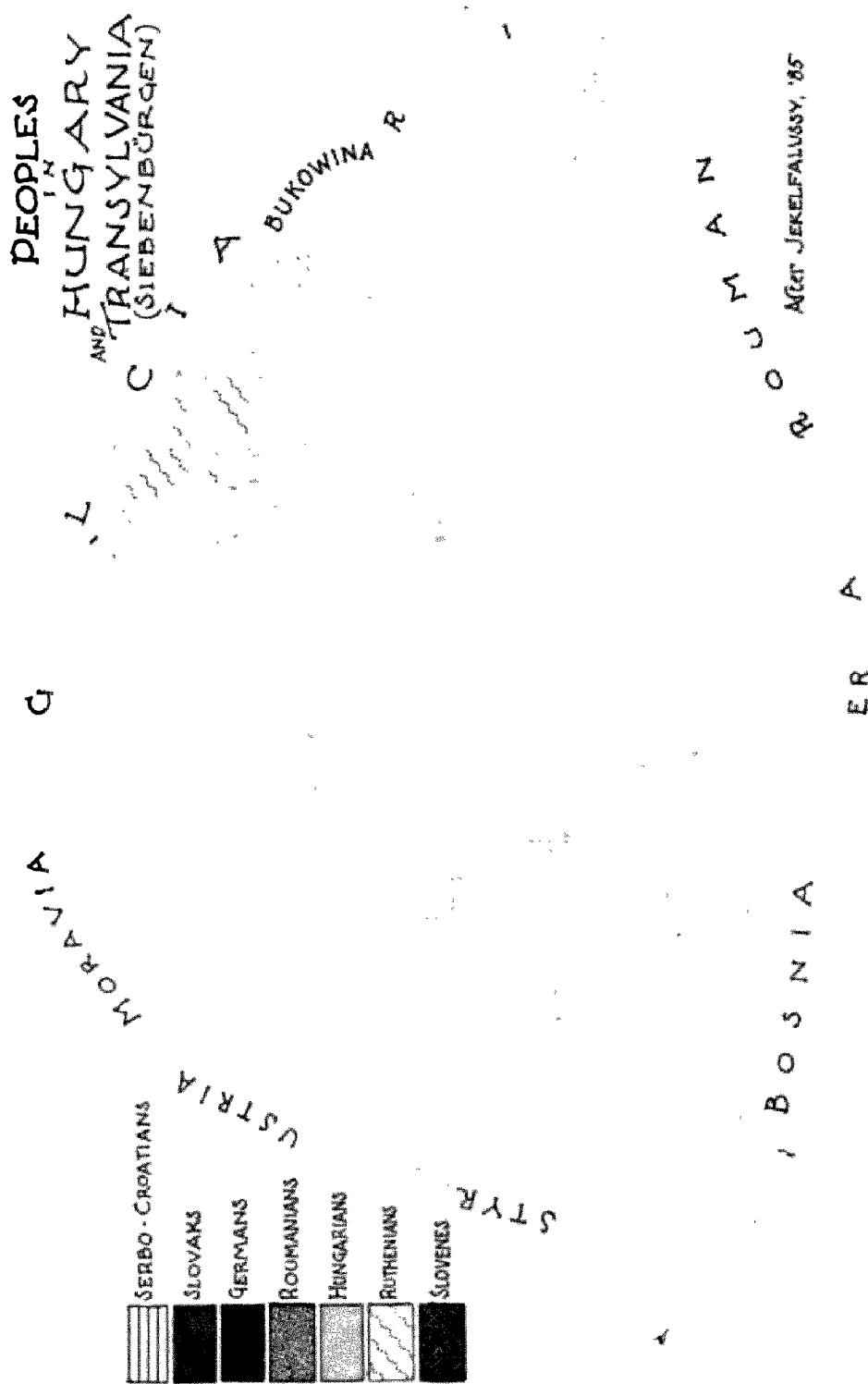
* 1891, p. 31. Women dolicho-, 25 per cent; meso-, 42 per cent; brachycephalic, 30 per cent; while among men the percentages are 3, 16, and 81± per cent respectively.

be definite. Their long-headedness, where it occurs, must date from a far more remote period than the historic advent of the few thousand immigrants who have given the name Bulgaria to the country.

As for the other physical traits of the Bulgarians and Roumanians there is little to be added. It goes without saying that they are both deep brunets. Obédénare⁽¹⁷⁶⁾ says the Roumanians are very difficult to distinguish from the modern Spaniards and Italians. This is probably true in respect of Brunetness. The Oriental caste of features of our portraits, on the other hand, can not fail to attract attention. More than two thirds of Bassanović's nineteen hundred and fifty-five Bulgarians were very dark-haired. Light eyes were of course more frequent, nearly forty per cent being classed as blue or greenish. A few—about five per cent—were yellow or tawny-haired, these individuals being at the same time blue-eyed. This was probably Procopius' excuse for the assertion that the Bulgars were of fair complexion. He also affirmed that they were of goodly stature. This is not true of either the modern Roumanians or Bulgars. They average less than five feet five inches in height,* being considerably shorter than the Turks, and positively diminutive beside the Bosnians and other southern Slavs. The Bulgarians especially are correspondingly stocky, heavily boned and built. We may add that there is a real difference in temperament between the two nationalities, built up, as we assert, from the same foundation. The Wallachians are said to be more emotional and responsive; the Bulgarians inclined to heaviness and stolidity. Both are pre-eminently industrious and contented cultivators of the soil, with little aptitude for commerce, so it is said. We hesitate to pass judgment in respect of their further aptitudes until fuller data can be provided than are available at the present time.

At almost no point are the Hungarian people permitted

* Bassanović's series of 1,955 individuals averages only 1.638 metres. *Op. cit.*, p. 30. Auerbach, 1898, p. 259, gives an average of 1.63 metres for 880 Wallachians in Transylvania. Obédénare, 1876, p. 374, states brown eyes to be most frequent in Roumania.



to touch the political boundaries of the kingdom which bears their name.* Our map illustrates this peculiar relation. The various nationalities are indeed disposed, as Auerbach ('98) suggests, as if in order of battle, the Magyars in a state of siege beset upon all sides. This dominant people are principally compacted about the historic city of Buda-Pesth in a more or less solid mass. In upon them from every side press rival languages and peoples. The Slovaks to the north are both numerous and united. Moravia, it will be remembered, was conquered by the Magyars only through the co-operation of the Germans. More than half of the population in the entire eastern half of the monarchy are Roumanians or Wallachs. These people have, as our map shows, penetrated so far into Hungary as to cut off a considerable area of Magyar speech in Transylvania (*Siebenbürgen*) from the great body of the nation about Buda-Pesth. A number of connecting islets of Hungarian survivals still exist between the two. This is proof positive that the Roumanians have come in later than the first Magyar possession, submerging their language and customs thereby.

The Transylvanian Magyars on the slopes of the Carpathians are known as *Széklers*, or "borderers," although we are disposed to think that it is the western Hungarians who are really best entitled to that name. At all events, this eastern group, though smaller, is far more compact. The main body of the nation in the west is interpenetrated by multitudes of colonists from the outside, especially by the Germans. As for the Serbo-Croatians, who have encroached upon Hungarian territory from the south, they seem, unlike the Germans, to form a coherent and clannish people. Almost nine tenths of the population in many places within the limits of the Serbo-Croatian language are in reality of this nationality. In no single Magyar district, on the other hand, according to the

* On the demography of Hungary consult especially the official compendium published in English, *The Millennium of Hungary and its People*, edited by Jekelfalussy, Buda-Pesth, 1897. Auerbach, *Les Races et Nationalités en Autriche-Hongrie*, Paris, 1898, is also excellent, Hunfalvy, 1877 and 1881, is a classic authority.

census of 1880, is there more than seventy per cent of Hungarians.*

By this time it will have been noted that Hungary is by no means solidly Magyar. Only about four tenths of the 17,500,000 inhabitants of the monarchy are of this nationality.† This minority, to be sure, outnumbers the total of the Germans, Slovaks, and Roumanians combined, but it is still a minority nevertheless. There are two good reasons why these people are entitled to rule; for, of course, we assume it to be a self-evident geographical proposition that but one single political unit should abide in this Danubian plain. It is one of the most clearly defined areas of characterization in Europe. The prior claim in behalf of Magyar sovereignty is based upon numerical preponderance. This is becoming strengthened continually, for it is certain that the Magyar speech is gaining ground more rapidly than any of its competitors. This is partly because the Hungarians are increasing faster than the other peoples about them. It is also due in a measure to the adoption of the official language by many who are of foreign birth. The second reason why the Magyars are entitled to rule all Hungary is because these people seem to be pre-eminent intellectually. They form the large mass of the city populations, the Slavs being natural cultivators of the soil. The liberal professions seem to be recruited from the Magyars also in the main.‡ Our data are drawn from Hungarian statistics, which naturally would not underestimate the ability of their own nationality. Even making due allowance for this, their representation in the intellectual classes is very marked. Certainly no better title to sovereignty could be urged.

* Jekelfalussy, 1885. The census of 1890 shows the same relative compactness of the Serbo-Croatians, although for some reason the percentages are considerably lower. Jekelfalussy, 1897, p. 417.

† Jekelfalussy, 1897, p. 417, gives census returns for 1890. The proportions are as follows: Hungarians, 42.8 per cent; Germans, 12.1 per cent; Slovaks, 11 per cent; Wallachs, 14.9 per cent; Ruthenians, 2.2 per cent; Croats, 9 per cent; Servians, 6.1 per cent. This, of course, is for Hungary alone, not for the Austro-Hungarian Empire.

‡ Cf. Jekelfalussy, 1897, p. 418, and Auerbach, 1898, p. 252.

The definite origin of the Magyars has long been a matter of controversy. Historically, they displaced the Avars, who had reduced the country to a state of anarchy in the last decade of the ninth century.* They seem to have come in from the northeast. For a while they were encamped in the plains between the Don and the lower Dnieper in Russia. The Bulgars seemingly pressed upon them here from behind, until they, to the number possibly of a few hundred thousand, crossed the Carpathians. They seem to have met with little opposition in effecting a settlement along the Danube, except in Moravia. Whence they came before their appearance in southern Russia no man knows with any approach to certainty. The only evidence is linguistic rather than historical.

Two centuries ago Fogel discovered a number of points of similarity between the Magyar language and that of the Lapps and Finns.† Closer analysis thereafter appeared to connect it most definitely with the speech of the Volga branch of this Finnic family, especially the Ostiaks and Voguls. A number of Turkish words seemed also to be related to the language of the Chouvashes. Vámbéry ‡ has made a determined and able effort to prove that both the Hungarian culture and language are Turkish rather than Finnic in origin. The nearest "poor relations" of the Hungarians are the Bashkirs, according to him; an opinion in which Sommier ⁽⁸¹⁾ seems to acquiesce. As for the Byzantine chroniclers, they called them Turks, Huns, and Ungars indiscriminately. On the whole, the trend of opinion seems to favour the Finnic hypothesis, making due allowance for the chance of borrowing from the Turkish peoples during the course of their long migrations. For our more general purposes all these theories lead to the same result. We may be fairly certain that we have to do with an immigrant people, originating in some part of Russia entirely beyond the sphere of the Aryan or inflectional languages.

* Hunfalvy, 1877, pp. 145-179.

† Simonyi gives an excellent chapter on this, in Jekelfalussy, 1897, pp. 143-165. (cf. also Hunfalvy, p. 146, and Pruner Bey, 1865.)

‡ 1882, pp. 235-257. Auerbach, 1898, p. 230, discusses it ably. Obermüller's (1871) fantastic theory of a Caucasian Kabardian derivation may be mentioned.

The physical characteristics of the Magyars have been but little investigated scientifically. We know less of them than of almost any other great European people. On the one hand, Topinard (⁷⁸) assures us that they form to-day "one of the most beautiful types in Europe"; on the other, we have it from Lefèvre * that our word "ogre" is a derivative from *ougre* or Hungar, so outlandish were these people to their new neighbours in Europe. Perhaps this may indeed have been so, although even the present Volga Finns shown in our portraits at page 358 are by no means Mongols or even ogres, in personal appearance. The modern Hungarians are certainly not un-European in any respect. Through the courtesy of Dr. Janko, custos of the National Museum at Buda-Pesth, we are able to present authentic portraits of perhaps the purest of the Magyars. Our types on the opposite page, and the additional one at page 228, are all representative of the Szeklers of Transylvania. From their isolation and the compactness of their settlement one might expect them to have retained their primitive features in some purity.

From these portraits and from our other data it appears that the Magyars are a strikingly fine-looking and well-developed people. The facial features are regular, the nose and mouth well formed. There is nothing Asiatic or Mongol to be seen. Perhaps, indeed, they have, as Dr. Beddoe writes me, an Oriental type of beauty, with somewhat prominent "semi-Tatar" cheek bones. Nevertheless, we find no trace of the "coarse Mongoloid features" which Keane (⁹⁰) describes among these *Szeklers*, whom he rightly seems to regard as the purest representatives of their race. Nor are they even very dark, these Hungarians. Brunets are in a majority, to be sure, but this is true of all southeastern Europe. The most prevalent combination is of blue eyes and chestnut hair, judging by the data from Dr. Janko's observations. Nearly every one of our portrait types were thus constituted.† Ac-

* 1896 b, p. 367. Cf. Jekelfalussy, 1898, p. 402.

† Of 81 Szeklers, 35 had blue eyes, 34 brown, 9 gray, and 3 light brown. As to hair colour, 20 were blond, 44 chestnut-brown, 13 black, 1 red, and 3 light brown.

cording to this, the Magyars differ but slightly from the Austrian Germans. Their blondish proclivities would tend to confirm the theory of Finnic rather than Turkish origin; for, as we have already shown, the Volga Finns, and even the Ostiaks and Voguls over in Siberia, are still quite light in type.

As for the head form of the Hungarians, the data are very scanty and defective. The eighty-four *Szeklers* of Janko's series gave an index of 84.5, from which it would appear that the purest of Magyars are pretty broad-headed. Weisbach's⁽⁷⁷⁾ and Lenhossek's^{*} results are not far from these, although Deniker † gives some indication of a longer-headedness. Rashly generalizing from this scanty material, we have ventured to predict a distribution of head form as shown on our map at page 340. This would indicate a natural cephalic index of about 84, falling toward the west by reason of German intermixture. In this respect, then, we find Turkish rather than Volga Finnic affinities, for the Volga Finns are all quite long-headed (see map, page 360). Finally, in stature our evidence in the matter of Finnic or Turkish origins is equally inconclusive. Janko's *Szeklers* were all very tall (1.70 metres), but others do not confirm this as a characteristic trait of the nation.‡ Most observers agree that the Magyars are only of average height; taller than the Poles, but shorter than the Serbo-Croatians. It is to be hoped that this most interesting field of investigation may not long remain unworked.* So far as our knowledge goes, it tends to confirm us in the view that the historians and ethnographers have immensely overestimated the importance of the original Finnic immigration, with a corresponding neglect of the population which existed in Hungary before their advent. These earlier inhabitants, while adopting the language of their conquerors, have succeeded in almost entirely obliterating the original traits of the Magyars as a race. If they were originally Finns and related to the Ostiaks and Voguls, the direction of their intermixture

* Revue d'Anth., série i, v, p. 552; Hunfalvy, 1877, p. 273.

† 1898 a, p. 120. ‡ Cf. map, page 350 *supra*, with appendix.

* On the state of archæology, *vide* Pulszky, 1891.

has all been toward that of the Alpine race. This latter has been proved an early possessor of the soil of central Europe. The present traits of the Hungarians seem to lend force to the hypothesis that the same race was also firmly rooted in the great Danubian plain before their appearance. According to this view, they would be, roughly speaking, perhaps one eighth Finnic and seven eighths Alpine by racial descent.

CHAPTER XVI.

WESTERN ASIA: CAUCASIA, ASIA MINOR, PERSIA, AND INDIA.

THE utter absurdity of the misnomer Caucasian, as applied to the blue-eyed and fair-headed “Aryan” (?) race of western Europe, is revealed by two indisputable facts. In the first place, this ideal blond type does not occur within many hundred miles of Caucasia; and, secondly, nowhere along the great Caucasian chain is there a single native tribe making use of a purely inflectional or Aryan language. In the days of Brosset and Bopp we were taught that the Georgians, most noted of the Caucasian tribes, spoke such a tongue. Blumenbach is said to have given the name Caucasian to his white race after seeing a fine specimen of such a Georgian skull. We know better to-day, thanks to the labours of Uslar and others. Even the Ossetes, whose language alone is possibly inflectional, have not had their claims to the honour of Aryan made positively clear as yet.* And even if Ossetian be Aryan, there is every reason to regard the people as immigrants from the direction of Iran, not indigenous Caucasians at all. Their head form, together with their occupation of territory along the only highway—the Pass of Dariel—across the chain from the south, give tenability to the hypothesis.† At all events, whether the Ossetes be Aryan or not, they little deserve pre-eminence among the other peoples about them. They are lacking both in the physical beauty ‡ for which this region is justly famous, and in courage as well, if we may judge by their reputation in yielding abjectly and without shadow of resistance to the Russians.

* Smirnof, 1878, gives full discussion. Cf. Seydlitz, 1881, p. 98.

† Houssay, 1887, p. 106; Seydlitz, 1881, p. 125.

‡ Chantre, 1895, iv, p. 156.

We mention these apparently irrelevant facts because it is undeniable that a large measure of the popularity of the name Caucasian has had its origin in the traditional physical perfection and chivalrous spirit of the natives of this part of the world. Byzantine harem tales of Circassian beauty have not failed to influence opinion upon the subject of European origins. Not even the charm of mystery remains in support of a Caucasian race theory to-day. In the present state of our knowledge, it is therefore difficult to excuse the statement of a recent authority, who still persists in the title *Homo Caucasicus* as applied to the peoples of Europe. It is not true that any of these Caucasians are even "somewhat typical."* As a fact, they could never be typical of anything. The name covers nearly every physical type and family of language of the Eur-Asian continent, except, as we have said, that blond, tall, "Aryan"-speaking one to which the name has been specifically applied. It is all false; not only improbable, but absurd. The Caucasus is not a cradle—it is rather a grave—of peoples, of languages, of customs, and of physical types.† Let us be assured of that point at the outset.

Nowhere else in the world probably is so heterogeneous a lot of people, languages, and religions gathered together in one place as along the chain of the Caucasus mountains.‡ Herodotus and the Plinys were well aware of this. The number of dialects is reckoned in the neighbourhood of sixty-eight. These represent all stages of development. One—that of the Ossetes—is possibly Aryan; it is but very primitively European, to say the least. A second, the Circassian—Kabardian and Abkhasian—is incorporative. It is so like the American Indian languages in structure that we find Cruel * using it as proof of a primitive American Indian substratum of population over Europe. May the day come when philologists shall have an eye to the common decencies of geographical and

* Keane, Ethnology, p. 226.

† Smirnof, 1878, p. 241.

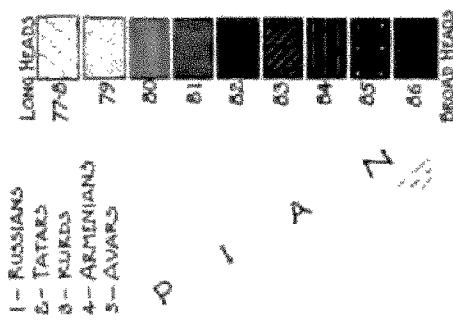
‡ On the ethnography, mainly linguistic, of the Caucasus, the principal authorities are Smirnof, 1878; Seydlitz, 1881 and 1885; and Chantre, 1885. Our map, after Rittich, 1878, has been corrected from the results of the later authorities.

* 1883, pp. 166-173.

physical possibility! Then again, there are the purely agglutinative languages—Asiatic in their affinities—of the Koumyks, Kalnucks, and Tatars. To all these we may add a fourth great linguistic family, the Semitic, represented by the Armenians and the omnipresent Jews. Over all and through all is what Bryce calls a "top dressing" of Europeans, speaking the most highly evolved languages peculiar to western or civilized Europe. Thus it happens, as Uslar long ago proved, that greater differences exist within the Caucasus between its linguistic "microcosms" than between the most widely separated members of the Aryan family in Europe. In other words, for example, the Avars differ more from the Ossetes or the Kabardians in language than the Lithuanians differ from the Spaniards. In the former case it is a matter of structure; in the latter merely of deviation from a common type or stem by a transmutation of root words.

The geographical character and location of the Caucasian mountains offer a patent explanation for this phenomenon of heterogeneity. Four distinct currents of language with their concomitant physical types, have swept up to the base of this insuperable physical barrier. We use the term insuperable advisedly, for there is in reality only one break in the entire chain from the Black Sea to the Caspian. This is the famous Pass of Dariel—eight thousand feet high—lying in the territory of the Ossetes. It explains why this people alone among all its neighbours is able to occupy both slopes of the mountains. All the other tribes and languages lie either on one side or the other. The Tatars, to be sure, are both north and south of the mountains; they seem to be about everywhere. Yet we have already shown (page 419) that where they have crossed the chain they have been entirely transformed physically by isolation. Up against such a mountain system as this, have swept great currents of human life from every quarter of the eastern hemisphere. They have not blended. There has been contiguous isolation, to coin a phrase, ample in supply for all. Thus has it been possible for each language to preserve and perhaps still further to develop its peculiarities *in situ*. Linguistic isolation has again served to intensify the geo-

graphical segregation due to physical environment. The effect of all this in the matter of race could not be other than to cause



CEPHALIC INDEX
CAUCASIA.
From DATA IN JAVORSKI '97
DENIKIN '90a
RITTICH '76a

a heterogeneity of physical types quite without parallel elsewhere in the world.

It would lead us too far astray from the main line of our interests to attempt a detailed description of the physical types

peculiar to all the Caucasian tribes.* Our principal object is negative—viz., to show what these people are not; that is to say, to divest this region of the fanciful importance which has so long been assigned to it by students of European origins. A glance at our map of cephalic index of Caucasia will make its physical heterogeneity apparent, even excluding the Armenians, Kurds, and Azerbeidjian Tatars who lie entirely outside the mountain chain. The first impression conveyed by the map, next to that of heterogeneity, is of a prevalent broad-headedness. In this respect the Caucasians as a whole are distinct both from the Russian Slavs on the north, and from the Iranian peoples—Tates or Tadjiks, Kurds, and Persians—in the opposite direction. Among the mountaineers themselves, the Lesghian tribes betray an accentuated brachycephaly equal to that of the pure Mongols about the Caspian. The Kartvelian tribes, numerically most important of all, seem to become somewhat longer-headed from east to west.† As for the principal remnant of the Tscherkesses or Circassians, known as Kabardians, they are not very different from their neighbours; but the Abkhazians along the Black Sea belonging to the same family, whom, by the way, Bryce ‡ calls “the most unmitigated rogues and thieves in all Caucasia,” are slightly more dolichocephalic than even the Russians. The fourth group—the Ossetes—appear on our map to be quite different from all the other Caucasians, except the Abkhazians just named. The difference between them and the Lesghians in head form is exemplified by comparison of the two lower types in our series near by. The round and occipitally short head of the Lesghian is at one extreme; the long oval one of the Ossete at the other. Their faces are as differently proportioned also as are their skulls.

* Chantre's monumental work, *Recherches Anthropologiques dans le Caucase*, 4 vols., *Atlas*, Paris, 1885-'87, is a standard. In addition, the detailed researches of Russian observers should be consulted, such as Pantyukhof, 1893, on the Georgians; Vyschogrod, 1895, on the Kabardians; Gilchenko, 1897, on the Ossetes; Sviderski, 1898, on the Koumyks, etc.

† Cf. table in Chantre, 1885, iv, p. 272.

‡ Transcaucasia and Ararat, 1897.

An important fact must be noted at this point—viz., that customs of cranial deformation are exceedingly prevalent all through Caucasia and Asia Minor. This renders all study of the head form quite uncertain. Thus the Laz about Batum practise this deformation most persistently; their foreshortened heads and their long oval faces are in corresponding dis-harmony.* Our portrait type from this tribe is apparently normal in head form. The occiput shows no sign of artificial depression. That their brachycephaly is real is much to be doubted. Among the Abkhazians, on the other hand, the rare phenomenon of lateral compression of the skull may account for their striking long-headedness.† On the whole, making due allowance for this uncertainty, it would seem that the Caucasians are pretty strongly inclined to be broad-headed. The Lesghians and the Svans are the wildest and most isolated. They are most brachycephalic. The Ossetes are on the highway of transmigration. They have either deviated from the original pattern, or else, as we have suggested above, they are immigrants, not indigenous at all.

Our series of portraits illustrates the facts concerning the facial features of these tribes. Their classic beauty is well represented in our Mingrelian, whom we may assume as typical of the Georgian group. It is, however, a perfectly formal, cold, and unintelligent beauty, in no wise expressive of character, as Chantre observes. The Mingrelians, despite their warm and fertile country, are, according to Bryce, persistently “ne'er-do-weels.” The Lesghian group, and also the Tchetchen, are described as less regularly featured than the Circassians or Georgians. The faces bear evident traces of the hardship to which not only their rigorous environment exposes them, but also of the continual struggle against the Mongols, who incessantly threaten them from the north. Their contrast in temperament with the characteristically gay and dance-loving Georgians is very marked. The renowned beauties of the Caucasus are, of course, the Tscherkessen or Circassians. The Kabardians are less pure than the Adighe or

* Chantre, 1885, iv, p. 91.

† *Op. cit.*, iv, p. 130.

Circassians proper, but even among them the broad shoulders and erect carriage, with the oval face, brilliant brown eyes, and fine chestnut hair, are predominant. In character these Circassians are also pre-eminent. Amiable, talkative, and inquisitive to a degree, they are also brave, chivalrous, and hospitable. To be sure, their name may be derived from the Turkish words meaning "to cut the road." Nevertheless, though given to brigandage, they are faithful to their friends. Their wholesale preference of exile to Russian domination, more than four fifths of them having emigrated to Turkey in the sixties, is evidence of a not inconsiderable moral stamina. The Ossetes, who by the way call themselves Ir or Irons, stand at the other extreme as regards both face and character. They are tall, but lack suppleness, elegance, and dignity; the features are said to be irregular and angular. Our portrait is a good type. Many Jewish features occur, as among the Circassians also, for that matter. In character they are deficient in bravery, their prompt acquiescence in the Russian military rule, as we have said, being characteristic. One physical peculiarity of importance remains to be noted. Chantre * found among the Ossetes above thirty per cent of blonds. This is thrice as great as among the Georgians. Nearly all the other Caucasians are of a relatively dark type, chestnut hair and dark-brown eyes prevailing, although black is quite common.† Even among the Laze, whose whiteness of skin is remarkable, Chantre found the hair of a third of them black. Thus we are easily able to dispose of any theory of a blond Caucasian race in the light of these facts.

A large area, indefinitely bounded by the Mediterranean Sea, Caucasia, the Red Sea, and the Pamir, remains to be described. Obviously, Asia Minor, Mesopotamia, and Persia can not be left out of account in our review of the Oriental peoples of Europe. This region has been the seat of the oldest known civilizations. It possesses a far better claim to our

* *Op. cit.*, iv, p. 170. Cf. Khanykoff, 1886, p. 113.

† Vyschogrod, for example, found forty-seven per cent of black hair among the Kabardians.

attention as a possible centre of human or cultural evolution than Caucasia. Two difficulties confront us at the outset in an analysis of its racial types. One is the kaleidoscopic changes ever taking place in the character of its nomad populations; the other is the intricacy of the problem due to the central location of the district. To it have converged from every direction great currents of immigration or invasion: Turkish-Tatar, from the steppes of Asia; European, from Greece; African, from Egypt. In the convergence of these currents upon this point we find, of course, a plausible explanation for its early pre-eminence in civilization. Corresponding difficulty in distinguishing the several ethnic elements is a necessary corollary of this fact.

The distribution of language offers positively no clew to the problem. The Azerbeidjian Tatars, forming a major element in the population of Persia, are positively Iranian in every trait, although their language is Turkish. Our portrait of one of these at page 449 reveals no symptom of Turkoman blood. Notwithstanding this, no other alternative is offered to the linguist than to class these people as Turks. The Kurds, on the other hand, are mainly inhabitants of Asiatic Turkey, but they are Iranian in their affinities, both linguistic and physical. The Armenians, judging by their language which seems to be Aryan,* might reasonably be expected to stand between the Greeks and the Persians. As a matter of fact, they are far more closely related physically to the Turkomans than to these other Aryan-speaking peoples. Language fails utterly to describe the racial situation.

This extensive region is to-day occupied by two distinct racial types, roughly corresponding to two of the three races which we have so painfully followed over Europe.† The first of these in this part of the world we may provisionally call the Iranian. It includes the Persians and Kurds, possibly the Ossetes in the Caucasus, and farther to the east a large

* Cf. note in Keane's Ethnology, p. 411. Whether Armenian be Iranic, Semitic, or unique, it is surely Aryan.

† Chantre's monumental *Recherches dans l'Asie Occidentale*, Lyon, 1895, is our authority. Cf. especially his summary at pp. 234-244.

number of Asiatic tribes, from the Afghans to the Hindus. These peoples are all primarily long-headed and dark brunets. They incline to slenderness of habit, although varying in stature according to circumstances. In them we recognise at once undoubted congeners of our Mediterranean race in Europe. The area of their extension runs off into Africa, through the Egyptians, who are clearly of the same race. Not only the modern peoples, but the ancient Egyptians and the Phœnicians also have been traced to the same source.* By far the larger portion of this part of western Asia is inhabited by this eastern branch of the Mediterranean race.

The second racial type in this borderland between Europe and Asia we may safely follow Chantre in calling Armenoid, because the Armenians most clearly represent it to-day. It is less widely distributed than the Iranian racial type. Outside of Asia Minor, it occurs sporadically among a few ethnic remnants in Syria and Mesopotamia. Throughout the Anatolian peninsula it forms the underlying substratum of population, far more primitive than any occupation by the Turks. This type is possessed of a most peculiar head form, known to somatologists as *hypsi-brachycephaly*. It is illustrated by our accompanying portrait page. The head is abnormally flattened at the back. It rises sharply from the neck, while, as if at the expense of this foreshortening, the height of the skull is greatly increased. This disguises, of course, the real breadth of face peculiar to this type, as contrasted with the Iranians. Artificial compression is at once suggested by such head forms as these. It is undoubtedly present, either consciously performed or else as a product of the hard cradles. That the shortness of the head is not entirely artificial can not be doubted, or else we have a case of inheritance of acquired characteristics. For even in absence of such deformation the same sugar-loaf cranial form occurs.† Along with this peculiarity of head form are other bodily characteristics differentiating these people from the Iranian type. The body is heavier built, with an inclination—among the Armenians at least—to

* Page 387 *supra*.

† Chantre, 1895, pp. 38-67.

obesity. There are not very great differences in pigmentation between the two racial types. Both are overwhelmingly brunet. The rare blonds of the Caucasus are even more scarce hereabouts; although Chantre found eleven per cent of blonds among them, the great majority were very dark. Only as we enter the Himalayan highlands, among Galchas and their fellows, do lighter traits in hair and eyes appear.

Two rival peoples—Kurds and Armenians—contend for the mastery of eastern Asia Minor. The first of these, the Kurds, are difficult to classify culturally. The lower classes are sedentary dwelling in villages, while the chiefs live in tents wandering at will. There are nearly two million of them in all, two thirds in Asiatic Turkey, the rest in Persia, with a few thousand in Caucasia. The Armenians claim that these Kurds are of Median origin, but the better opinion is that they are descendants of the Chaldeans. Their affinity to the Syrian Arabs can not be doubted.* These Kurds have remained relatively untouched by the Mongol or Turkish invasions in the retirement afforded by the mountains of Kurdistan. Both in their language and their physical traits they are Iranian. Chantre,† studying them in Asia Minor, reports as to their hard features and savage aspect. Their own derivation of "Kurd" is from a word meaning "excellent"; but the Turkish equivalent for it, "wolf," seems more aptly to describe their character. They are very dark, with eyes of a deep-brown tint; the women darker, as a rule. Our portrait at page 449 is fairly typical. The nose is straight or convex; rarely concave. The head is long and exceedingly narrow (index 78.5), with a face corresponding in its dimensions. The effects of lateral compression of the skull are plainly apparent in our portrait. In stature they are of moderate height. As a whole, owing to their wide extension, nomadic habits, and lack of social solidarity, these Kurds are a heterogeneous people. They lack the strong cementing bonds either of religion or of a national literature.

* Chantre, 1885, ii, p. 214.

† 1895, pp. 75 *et seq.*; with data on 332 subjects. Nasonof, 1890, is also good.

Even aside from their persistence in Christianity despite all manner of oppression, the Armenians are by far the most interesting people of Asia Minor. Of all the Orientals, they are the most intelligent, industrious, and peaceful. In many traits of character they resemble the Jews, especially in their aptitude for commercial pursuits and in their characteristic frugality, inclining to parsimony. There are about five million of these Armenians in all, somewhat over half of them being inhabitants of Turkey, with the remainder in Russian Caucasia and Persia. Anthropologically, these people are of supreme importance as an example of purity of physical type, resulting from a notable social and religious solidarity. They rival the Jews again in this respect. One of this nation can almost invariably be detected at once by means of his peculiar head form, which we have already described.* Even in places where they have been isolated from the main body of the nation for centuries they adhere to this primitive type. Houssay,† for example, finds the Armenian colonists near Ispahan in Persia settled there in 1605, still strongly individualized physically.

It is not without significance, we believe, that Chantre,‡ remarking upon the purity of the Armenian type, adds that it is "more homogeneous in appearance than in reality." There is good evidence to show that their unity of type, being largely a product of social selection, is defective in those details of which the people themselves are not conscious. It would appear that in their head form, differently from most people, they fully realize their own peculiarities. Deformation of the skull so commonly practised, seems often, as Chantre says, to "exaggerate the brachycephaly common to them." The Kurds, on the other hand, being naturally dolichocephalic, make their heads appear longer than they really are by artificial means.* The deadly enmity between Kurds and Armenians is well known. Can it be that these opposing customs of cranial de-

* On the Armenians, consult Chantre, 1895, pp. 37 *et seq.* : Von Luschan, 1889, p. 212; Khanykoff, 1866, pp. 112; and Tvaryanovitch, 1897.

† 1887, p. 120.

‡ 1895, pp. 238, 341.

* *Op. cit.*, pp. 51 and 113.

formation are an expression of it to some degree? We venture to suggest it as a partial explanation.

That the Armenoid or *hypsibrachycephalic* racial type of Asia Minor is not entirely a matter of artificial selection would appear from its prevalence in out-of-the-way places all over Asia Minor. It occurs far outside the Armenian territory. It is more fundamental than the social consciousness of a nation. Von Luschan * finds it among a number of primitive tribes in Anatolia, noticeably among the so-called Tachtadsky. These people, now few in numbers, inhabit the mountainous and remote districts in Lycia. Their name, "woodcutters," designates the occupation in which they are mainly engaged. They are only superficially Mohammedans, their real cult being entirely secret, and probably pagan. Living in rude shelters at elevations of three or four thousand feet above the sea, they appear in the towns only at rare intervals. The necessity of selling their wares overcomes their dread of the tax-gatherer and of army service. Quite like the Tachtadsky physically are another people, known as the Bektasch, or "half Christians," who form the town population in some regions. Down in the mountains of northern Syria the same stratum of population crops out among the Ansariés, or "little Christians." According to Chantre,† these people are anthropologically indistinguishable from the other Armenoid types. Generally speaking, all these peoples are found only in regions of isolation—in marshy, mountainous, or remote districts. On the coast and in the larger towns a type akin to the long-headed Greek is more apt to prevail. For these reasons, von Luschan (⁸⁹) concludes that the Armenoid type is the more primitive, and that it represents the earliest inhabitants of the peninsula. That it is older than the Turks no one can doubt. Yet we are inclined to agree with Sergi ‡ that it is not necessarily the very earliest. In fact, there is evidence to show a still more ancient type, like that found in the Greek necropoli. This latter is quite Mediterranean in its racial affinities; probably of the

* 1889, pp. 198-213. Cf. also Vámbéry, 1885, p. 607.

† 1895, pp. 139-148.

‡ 1895 a, p. 58.

same origin as the dolichocephalic Iranian peoples who still predominate to the south and west.

Summarizing the anthropological history of Asia Minor, we draw the following conclusions: First, that the Mediterranean or Iranian racial type represents the oldest layer of population in this part of the world. This, as we shall see in the next chapter, is true of all Europe also. A second racial element, subsequently superposed, is that of the Armenoid or brachycephalic type. The similarity of this to our Alpine races of western Europe has been especially emphasized by the most competent authority, von Luschan.* Finally, on top of all has come the modern layer of immigrant and more or less nomadic Turks and their fellows. The possibility of connecting one of these, our second or Armenoid type, with the ancient Hittites can not fail to suggest itself.† Possibly it was Pelasgic. Von Luschan (1892) suggests it. Sergi (1895) believes the Pelasgi and Hittites were both Asiatic in origin. Who knows? It would be of interest to examine the question further had we sufficient time. For our immediate purposes the importance of the Armenoid group is derived from the fact that it, with the Caucasian one, is the only connecting link between the Alpine racial type of western Europe and its prototype, or perhaps we had better say merely its congener, in the highlands of western Asia. The tenuity of the connecting link between the two is greatest at this point. Were it not for the potent selective influences of religion, complete rupture by the invading Tatar-Turks might conceivably have taken place. As it is, the continuity of the Alpine race across Asia Minor can not be doubted.

In Persia there is no such clear segregation of racial types as we have observed between Armenians and Kurds, who are as impossible of intermixture as oil and water. We have passed beyond the outermost sphere of European religion, Christianity. Marked topographical features are also lacking on the great

* 1889, p. 212.

† On Hittite ethnography consult De Cara, *Gli Hetthei-Pelasgi*, Roma, 1894; Sergi, 1895 a, p. 54; and the works of Wright (1884), Bertin (1888), Tomkins (1889), Sayce (1891), and Conder (1898).

plateau of Iran. A wholesale blending of types has consequently ensued among the modern Persians.* Three distinct ethnic influences have been at work, however, producing what we may call varieties, or subtypes, of the pure Iranian. This latter is found only in two limited districts: one among the Farsis about Persepolis, just northeast of the Persian Gulf; the other among the Loris, or "mountaineers," somewhat farther to the west, over against the Kurds. Of these, the former are the ideal Aryans (?) of the earlier philologists. Their skin is described as fair. They are slender but finely formed. This trait is quite noticeable in comparing them with the Turkomans or Tatars. The hair and beard are abundant, of a dark chestnut colour. Thus they are blonds, only by comparison with their darker neighbours on every side. Real blonds, with blue eyes, are very rare; we have Houssay's word for that. The Loris are taller and much darker, often with black hair. Let us add that they are also acutely dolichocephalic, with smoothly oval faces and regular features, thus in every detail corresponding to the criteria necessary to adjudge them Mediterranean by race.

Three subvarieties of this ideal Persian type lie in the several directions of Africa, central Asia, and India. The first of these is Semitic. It occurs all along the line of contact with the Arabs, producing as a natural consequence a distinctly darker population toward the southwest. The second subvariety forms the great mass of the nation. It results from an intermixture with the pure Iranian of a Turkoman or Tatar strain. Such are the Hadjémis and Tadjiks, for example, who predominate in the east and northeast. The Azerbeidjian Tatars, whom we have already described,† also fall within this class. Although they speak Turkish, they are in reality distinctly Iranian by race. Our portrait on the opposite page, reproduced from Danilof's monograph, is fairly typical. The hair is coarser,

* Authorities are Duhousset, *Les Populations de la Perse*, 1859; Khanykoff, *Mémoire sur l'Ethnographie de la Perse*, 1866; Houssay, *Les Peuples Actuels de la Perse*, Bull. Soc. d'Anth., Lyon, pp. 101-148, with map; and Danilof's work of 1894 in Russian, especially cols. 10-20. This we have had translated; our portraits are from the same source.

† Page 419 *supra*.

inclining to black; the face is broader, with greater prominence of the cheek bones, than in the pure Iranian. The heads at the same time become broader, especially toward the northeast; and what Bryce calls the "slim, lithe, stealthy, and cat-like Persian," is transformed into the bigger and more robust Turkoman. Instead of Turkoman, dare we say an Alpine strain of blood is here apparent? We shall see. Finally, our third subtype of the Persian occurs toward the southeast, among the so-called Suzians, about the mouth of the Persian Gulf. Look at our portrait of one of these on the preceding page. Is not the strain of negroid blood at once apparent? Notice the flattened and open nose, the thick lips and the black hair and eyes. We have reached the confines of India. Here we meet the first traces of the aboriginal population underlying the Hindoos. It includes all the native Indian hill tribes, and extends away off over seas into Melanesia. We are entering upon a new zoölogical realm. Our tedious descriptive task for European peoples is nearly completed.

East of Persia the several racial types which have almost imperceptibly blended into the modern population of that country divide at the western base of the central Asiatic highlands. This great barrier, as we have already pointed out in our chapter on the head form, marks one of the most sudden racial transitions in the world. At its eastern end along the Himalayas, it divides the pure Mongols in Thibet from the Hindoos and the negroid hill tribes of India. Farther to the west, the Hindu-Koosh Mountains in Afghanistan have forced apart the two racial types which we have traced all the way here from Europe. North of the mountains in Turkestan one racial type—the Alpine—occurs among the Turkomans. We can not too strongly emphasize the fact that these peoples in the Aral-Caspian Sea depression are by no means Mongol as a whole. South of the Hindu-Koosh extends the eastern branch of the Mediterranean race, among the Afghans and Hindoos. Space forbids a description of these Indo-Europeans in detail.* We are all familiar with the type, especially as it

* Anthropological authorities on the Hindoos are less abundant than for the native or Dravidian peoples. Risley, 1891, is the most comprehensive.

is emphasized by inbreeding and selection among the Brahmins.* There can be no doubt of their racial affiliation with our Berbers, Greeks, Italians, and Spaniards. They are all members of the same race, at once the widest in its geographical extension, the most populous, and the most primitive of our three European types.

In our former description of the Turkomans of the Aral-Caspian Sea depression we have left little doubt as to their affinity to the Alpine race of Europe. In the mountaineers of the Pamir this resemblance becomes perfect. Topinard's immediate recognition of this fact twenty years ago, on the basis of Ujfalvy's discoveries, has never been disputed.† More than that, in the highlands of the Pamir among the Galchas a little west of Samarcand, linguistic research has proved that the European or inflectional type of languages prevails over a large area.‡ These Galcha tribes, or mountain Tadjiks, differ in several ways from the great body of the nomadic Turkomans in the Caspian steppes. In every detail they tend toward the Alpine type, as if by reason of their isolation in the mountains, a primitive population had been preserved in relative purity. For all practical purposes, our two upper portraits at page 45 may be taken as representative of this easternmost member of the brachycephalic, gray-eyed, and heavily built race of central Europe. These people are not blonds, nor even as blond as the Tadjiks in the plains.* They are even more brachycephalic, however, almost establishing a world's record in this respect. In this connection it is curious to note

hensive. Cf. also Mantegazza, 1883-'84; Crooke, 1890; and the works of Oppert, Rousselet, and others.

* Johnston, *Race et Caste dans l'Inde*; L'Anth., vi, 1895, pp. 176-181, discusses the skin colour. Kollmann, *Internationales Archiv für Ethnographie*, vi, 1893, p. 51, shows the differences in head form; the Brahmins being apparently more brachycephalic.

† Rev. d'Anth., 1878, p. 706. Cf. note, p. 417 *supra*. Ujfalvy, in Bull. Soc. d'Anth., 1887, p. 15, describes the progress of opinion in this direction.

‡ Ujfalvy, 1896 a, pp. 44 *et seq.* Van den Gheyn (1884); also Tomaschek and others, cited by Keane, *Ethnology*, p. 411.

* Ujfalvy, 1896 a, pp. 53, 428, and 485.

that among the peoples north of the Hindu-Koosh broad-headedness increases as one penetrates the mountains, while on their southern slopes the opposite rule obtains.* From either side, therefore, purity of types—and these, too, of a very different sort—increase toward the watershed which lies between them. How different a phenomenon from that afforded by the gradual transitions of type on the Iranian plateau! Can it longer be affirmed that in approaching the highlands of Asia we are tracing our European racial types back to a common trunk? Facts all belie the assumption. Two at least, of the racial elements in the peoples of Europe are as fundamentally different here in the heart of Asia as all through central Europe. In other words, in our progress from Europe eastward, instead of proceeding toward the trunk, rather does it appear that we have been pushing out to the farthest branches of two fundamentally distinct human types.

* *Op. cit.*, p. 52.

CHAPTER XVII.

EUROPEAN ORIGINS: RACE AND LANGUAGE; THE ARYAN QUESTION.

IN our school days most of us were brought up to regard Asia as the mother of European peoples. We were told that an ideal race of men swarmed forth from the Himalayan highlands, disseminating culture right and left as they spread through the barbarous West. The primitive language, parent to all of the varieties of speech—Romance, Teutonic, Slavic, Persian, or Hindustanee—spoken by the so-called Caucasian or white race, was called Aryan. By inference this name was shifted to the shoulders of the people themselves, who were known as the Aryan race. In the days when such symmetrical generalizations held sway there was no science of physical anthropology; prehistoric archæology was not yet. Shem, Ham, and Japhet were still the patriarchal founders of the great racial varieties of the genus *Homo*. A new science of philology dazzled the intelligent world by its brilliant discoveries, and its words were law. Since 1860 these early inductions have completely broken down in the light of modern research; and even to-day greater uncertainty prevails in many phases of the question that would have been admitted possible twenty years ago. The great difficulty is to approach the matter in a calm and entirely judicial spirit; for it may justly be affirmed that no other scientific question, with the exception, perhaps, of the doctrine of evolution, was ever so bitterly discussed or so infernally confounded at the hands of Chauvinistic or otherwise biassed writers.

At the very outset let us rigidly distinguish the phenomena, principles, and conclusions concerning race from those of language and culture, and each of these in turn from the

other. Archaeology, to be sure, may sometimes combine the data of human remains with those of an attendant civilization; but philology has, in our present state of knowledge, no possible bond of union in the study of European origins with either of the other two sciences. All attempts, therefore, to correlate linguistic data with those derived from the study of physical characteristics are not only illogical and unscientific; they are at the same time impossible and absurd, as we shall hope to show. They involve an entire misconception of the just principles and limitations of scientific research.

Two antagonistic opinions, respectively characteristic of the rival French and German schools of anthropology, have obtained widespread popular currency through neglect to observe the rule laid down in the preceding paragraph. The first of these is that the "Aryan race" was somehow blond, long-headed, and tall—in other words, that the ancestors of the modern Teutonic type were the original civilizers of Europe. For civilization and Aryanism were indissolubly considered as one and the same; all plausible enough, to be sure, until you look the matter squarely in the face. It is easy to see how this gratuitous assumption of a tall, blond "Aryan race" originated. The sacred books of the East suggested that the chosen people were "white men." This is not surprising, in view of the fact that the aboriginal inhabitants of India, among whom they came, were veritably then, as they are to-day, negroes. Johnston⁽⁹⁵⁾ has shown us how clearly a blond skin is an index of caste among the Brahmans even at this late day. After the Vedas the Greeks took it up, and represented their ideal types after the same blond fashion.* The coincidence that many of the most distinctive Aryan-speaking Europeans to-day are blonds compared with the Basques, Magyars, Turks, and Mongols, who lie outside the Aryan pale, apparently gave scientific voucher to the view. The Indo-Germanic languages—note the adjective—were essentially European; the Teutonic type was the only real *Homo Europaeus*. Hence *Homo Europaeus* was the original Aryan. A logical

* Cf. Lapouge, 1889 a; Sergi, 1895 a, p. 19.

leap in the dark! This did not prevent it from being taken. The idea gained in prestige year by year, especially as the racial Teutonism of the upper classes all over Europe was definitely established. What wonder that the blondness, tallness—nay, even the necessary long-headedness—of the “Aryan race” rose about the need of proof? At the hands of Wilser,* Poesche ('78), Penka ('86), Zaborowski,† Lapouge ('89), and their disciples it has attained the rank of law!

The scientific heresy of attempting to locate a linguistic centre through appeal to physical characteristics has created its greatest devastation among the ranks of the philologists; even Sayce ('87), Rhys,‡ and Rendall ('89) seem to have been deceived by its apparent plausibility. Some of the older anthropologists were certainly tainted with the notion. Schaffhausen, Ecker, and von Hölder are all cited in its favour by Penka.* The notion crops out all along through the memorable discussions over the Aryan question in the Société d'Anthropologie at Paris in 1864.|| Latterly, with clearer light upon the subject, few authorities upon either side hesitate to condemn any and all such attempts to correlate the data of two entirely incompatible and independent sciences. Virchow, for example, styles such a theory of an “Aryan race” as “pure fiction.” Reinach ('92) stigmatizes Penka's hypothesis that the Aryans were Scandinavians as a “prehistoric romance.” Few somatologists would even agree with Huxley^A to-day that blondness of the Aryans is a “fair working hypothesis”; or assume with Keane that “nevertheless, all things considered, it seems probable enough.” Max Müller ('88), making heroic reparation for the errors of his youth, hits much nearer the mark when he writes: “To me, an ethnologist who speaks of an Aryan race, Aryan blood, Aryan eyes and hair, is as great a sinner as a linguist who speaks of a dolichocephalic dictionary or a brachycephalic grammar. It is worse than a Baby-

* 1885, p. 77.

† 1898, p. 62.

‡ 1890-'91, p. 251.

* Von Hölder, 1876, p. 32, expressly denies the possibility of any racial proof.

| *Résumé* by Reinach, 1892, pp. 38-46. See also Aryans in index to our supplementary Bibliography.

^A 1890, p. 297.

Ionian confusion of tongues—it is downright theft. . . . If I say Aryas, I mean neither blood, nor bones, nor hair, nor skull. I mean simply those who speak an Aryan language."

We have shown what havoc may be wrought in clear thinking by attempted correlations between physical anthropology and linguistics. A second error against which we must be on our guard is that of confusing the data of archæology with those of the science of language. Because a people early hit upon the knowledge of bronze and learned how to tame horses and milk cows, it does not follow that they also invented the declension of nouns and the conjugation of verbs. Such an assumption is scarcely less unwarranted than that a man's hair must be blond and his eyes blue because he is inflectional in his speech. Nevertheless, this is the basis upon which many anthropologists of the Gallic school * have sought to identify the Alpine race—a predominant element in the French nation, be it observed—as the only and original Aryans. Whether they are justified, in the first place, in their claim that this race really bore an Oriental culture into western Europe will be food for our further discussion.† But, even assuming for a moment's peace that they did, it does not and can not prove anything further respecting the language which was upon their lips. Unless reasoning can be held well aloof from any such assumptions, the question of European origins will never cease to be an arena in which heads are wildly broken to no scientific avail.

In order that we may conscientiously distinguish between the positively proved and the merely hypothetical, we shall advance by propositions, keeping them in martial order. We are entering debatable territory. One great advantage alone we may claim. As Americans, we should be endowed with "the serene impartiality of a mongrel," as the late Professor

* De Mortillet, 1879; Ujfalvy, 1884 b, p. 437; Sergi, 1898 a, p. 141; Zampa, 1891 a, p. 77. Canon Taylor's reasoning is also prejudiced by this assumption (1890, p. 295). Zaborowski, 1881, asserts that Henri Martin among Frenchmen alone dissents from this view. He should have added Lapouge, 1889 a. Cf. Reinach, 1892, p. 59; and the renewed discussion of the Aryan question in the Société d'Anthropologie in 1879.

† Page 486 *infra*.

Huxley put it. No logical conclusion has terror for us. Whether the noble Aryan be proved Teuton, Celt, or Iberian, it is all the same. We have no monopoly of inheritance in it in any case.

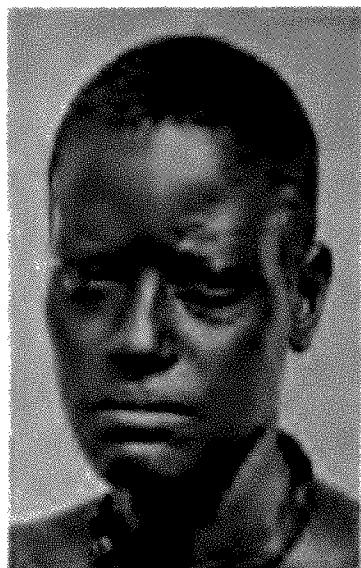
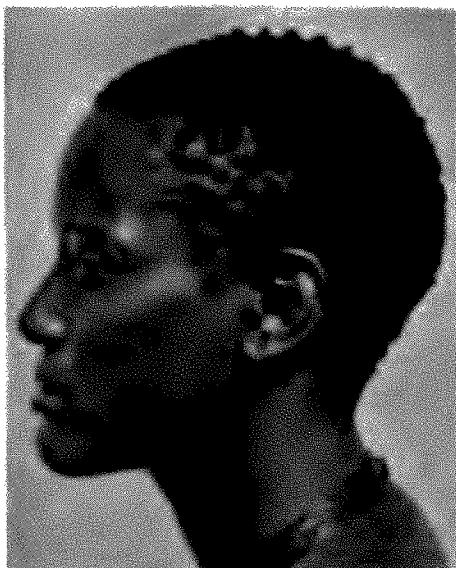
Concerning **race**, first of all, we may hold four propositions to be fairly susceptible of proof. They are as follows:

I. *The European races, as a whole, show signs of a secondary or derived origin; certain characteristics, especially the texture of the hair, lead us to class them as intermediate between the extreme primary types of the Asiatic and the negro races respectively.*

From what we have seen of the head form, complexion, and stature of the population of Europe, we might be led to expect that in other physical traits as well this little continent contained all extremes of human variation. We have been surprised, perhaps, at the exceeding diversity of forms occurring within so restricted an area, and in a human group which most of us have perhaps been taught to regard as homogeneous. One physical characteristic alone affords justification for this hypothesis of ethnic homogeneity. This is the form and texture of the hair. Only in this respect, not in its colour, the hair is quite uniform all over Europe, and even far into Hindustan, where Aryan languages have migrated. At the same time, however, this texture in itself indicates a secondary origin—that is to say, it denotes a human type derived from the crossing of others which we may class as primary. The population of Europe, in other words, should be numbered among the secondary races of the earth. What its constituent elements may have been we shall discuss somewhat later.

The two extremes of hair texture in the human species are the crisp curly variety so familiar to us in the African negro; and the stiff, wiry, straight hair of the Asiatic and the American aborigines. These traits are exceedingly persistent; they persevere oftentimes through generations of ethnic intermixture. It has been shown by Pruner Bey and others that this outward contrast in texture is due to, or at all events coincident with, real morphological differences in structure. The

curly hair is almost always of a flattened, ribbon-like form in cross section, as examined microscopically; while, cut squarely across, the straight hair more often inclines to a fully rounded or cylindrical shape. It may be coarse, or fine, or of any colour, but the texture remains quite constant in the same individual and the same race. Moreover, this peculiarity in cross section may often be detected in any crossing of these extreme types. The result of such intermixture is to impart a more or less wavy appearance to the hair, and to produce a cross section intermediate between a flattened oval and a circle. Roughly speaking, the more pronounced the flatness

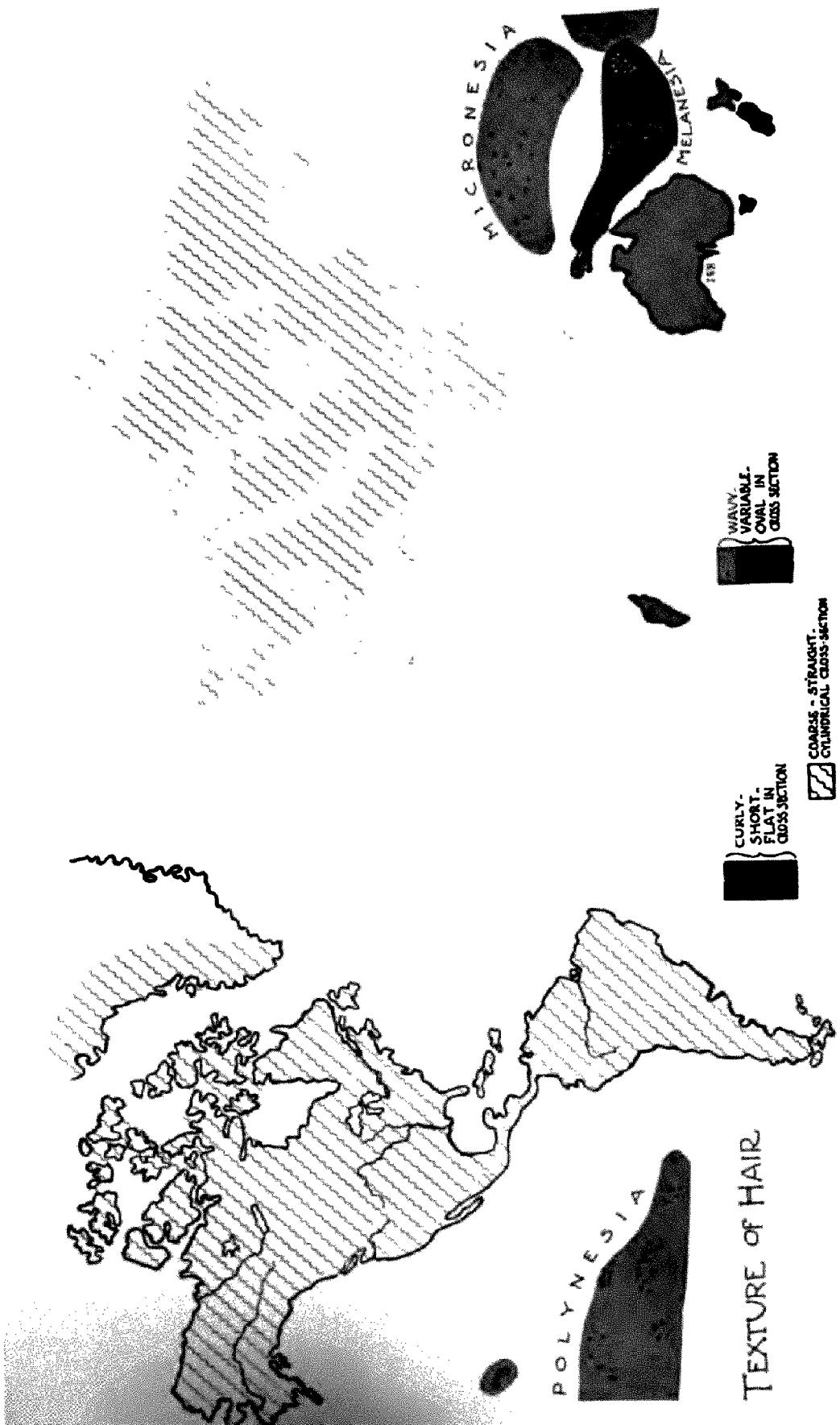


Negro type; Uganda. (From Buchta, *Die oberen Nil-Länder*, 1881.)

the greater is the tendency toward waviness or curling, and the reverse.

Our map, after Gerland (¹⁹²), shows the geographical distribution of these several varieties of hair texture among the races of the earth. As in all our preceding world maps, we have to do with the aboriginal and not the imported peoples. Our data for North America apply to the Indians alone, before the advent of either the whites or negroes. These latter depart in no wise physically from the types whence they were derived. It appears that most of Asia and both the Americas are quite uniformly straight-haired. At the other extreme

TEXTURE OF HAIR



stands Africa, and especially Papua and the archipelago to the southeast of it, which as far as the Fiji group is known as Melanesia, or the "black islands." According to Keane ⁽²⁸⁾, the name Papua is derived from a Malay word, meaning "frizzled." This map strikingly corroborates the evidence presented by our other world maps, showing the distribution of the head form and the skin colour. Generally speaking, the aphorism holds that the round-headed people are also round-haired. The black-skinned races are, on the other hand, generally long-headed and characterized by hair of an elongated oval in cross section. Physical anthropologists, to be sure, distinguish several subvarieties of this curly hair. Thus, among the Bushmen and Hottentots at the southern tip of Africa, the spirals are so tight that the hair aggregates in little nubbles over the scalp, leaving what were long supposed to be entirely bald spots between. This is known as the pepper-corn type, from its resemblance to such grains scattered over the head. And in Melanesia the texture is not quite like that of the main body of the Africans; but for all practical purposes they may all be classed together.

The remaining tints upon our map denote the extension of the wavy textured hair, which is generally intermediate in cross section, varying from ribbonlike to nearly cylindrical shape. There are three separate subdivisions under this head. Two of these, the Polynesian and the Australian, are most certainly wavy-haired mongrels, derived from intermixture of the straight-haired Asiatic races with the extreme frizzled type of Melanesia. This latter is by all authorities regarded as the primitive occupant of the Pacific archipelago, and of Indonesia as well. Among the Malays, and such hybrids as the Japanese, the Asiatic type preponderates; in the Australian peoples the other element is more strongly represented. Tasmania is quite distinct from its neighbouring continent. Isolation perhaps has kept it true to its primitive type. The Polynesians and Micronesians seem to be compounded of about equal proportions of each. Of course, all sorts of variations are common. The peoples of the Pacific are peculiarly aberrant in this respect. Some islands are characterized by quite

lank and coarse-haired types; some have the frizzled hair stiffened just enough to make it stand on end, producing those surprising shocks familiar to us in our school-geography illustrations of the Fiji islanders.

What shall we say of the European races, the third of our intermediate types? Here also all individual variations occur, seemingly in utter defiance of any law. The Italian is as apt to be straight-haired as the Norwegian; in either nation the curly variety seems to occur sporadically. Yet common observation, to say nothing of microscopical examination, would naturally class the population of Europe among the fine-textured, wavy-haired races of the earth. One never sees the wiry form so familiar in the American Indian, or the frizzle of the full-blooded negro. Are we to infer from this that the people of Europe, therefore, are, like the Polynesians and Australians, the result of an ethnic cross between other more primary types? Certainly the study of the head form, with every extreme known to man within the confines of the single continent, seems to discredit this possibility. The only alternative is to consider this texture of hair to be a more liquid characteristic, so to speak, than the shape of the head; in other words, to assume that a few drops of alien blood might suffice to produce an intermediate texture of the hair, and yet not be adequate to modify the head form. If this were indeed so, then we might imagine that, even while our three European races have kept reasonably distinct in head form, intermixture has nevertheless taken place to some extent in every nook and corner of the continent; and that this infinitesimal crossing has been enough to modify the hair texture. But we are now wandering off into vague hypothesis. There is yet enough that is positively known to demand our attention without indulging in speculation. We have stated the situation; let the reader draw his own conclusions.

II. The earliest and lowest strata of population in Europe were extremely long-headed; probability points to the living Mediterranean race as most nearly representative of it to-day.

Of the most primitive types, coexisting with a fauna and flora now extinct or migrated with change of climate from

central and western Europe, oftentimes no remains exist except the skulls by which to judge of their ethnic affinities. We know more, in fact, concerning their culture than their physical type in the earlier stone age at least; but it is nevertheless established beyond all question that they were dolichocephalic, and that, too, to a remarkable degree. This feature characterized all subdivisions of the populations of this epoch. Many varieties have been identified by specialists, such as the stocky, short-statured Neanderthal type and the taller and more finely moulded Cro-Magnon race. The classification of each nation differs in minor details, but they all agree in this, that the population both of the early and the late stone age was long-headed to an extreme.

The present unanimity of opinion among archæologists concerning this earliest dolichocephalic population is all the more remarkable because it represents a complete reversal of the earliest theories on the subject. Retzius, in 1842, from a comparison of the Scandinavians with the Lapps and Finns, propounded the hypothesis that the latter broad-headed brunet types were the relics of a pre-Aryan population of Europe. The comparative barbarism of the Lapps confirmed him in this view. It seemed to be plain that this Mongoloid or Asiatic variety of man had been repressed to this remote northern region by an immigrant blond, long-headed race from the southwest. That this is in a measure true for Scandinavia can not be denied. Arbo's researches show a Lapp substratum considerably outside their present restricted territory. That is a very different matter from the affirmation that such a brachycephalic ("Turanian") race once inhabited all Europe before the Aryan advent. Such was, however, the current opinion. To show its popularity, it is only necessary to cite the names of its leading exponents.* Nilsson and Steenstrup first took it up, and then afterward Schaffhausen, Nicolucci, Thurnam, Lubach, Busk, and Carter Blake. Its leading exponents in France were Pruner Bey and De Quatrefages. Edwards and Belloguét assumed it as proved in all their generalizations.

* Cf. Hamy, 1884, p. 44; and Virchow, 1874 a; Ranke, *Mensch.*, ii, pp. 445, 528-530; Schaffhausen, 1889.

Then began the discoveries of abundant prehistoric remains all over Europe, particularly in France. These with one accord tended to show that the European aborigines of the stone age were not Mongoloid like the Lapps after all, but the exact opposite. In every detail they resembled rather the dolichocephalic negroes of Africa. The only other races approaching them in long-headedness are either the Eskimos, whom Boyd Dawkins believes to be a relic of this early European people, or else the Australians. Huxley, in turn, long ago asserted these latter savages to be our human progenitors. We need not stop to discuss either of these radical opinions. It is sufficient for us that Broca finally dealt the death blow to the older view in 1868 by the evidence from the caves of Périgord; the very district where our living Cro-Magnon type still survives, as we have already shown.

This dolichocephalic substratum has been traced all over Europe with much detail in the neolithic or late stone age; by which time the geography and the flora and fauna of the continent had assumed in great measure their present conditions. We know that the long-headed type, now predominating on the northern and southern outskirts of Europe, in Spain, southern Italy, the British Isles, and Scandinavia, once occupied territory close up to the foot of the high Alps on every side. Remains of it have not yet been found in the mountains themselves, although closely hedging them in on every side. For example, Zampa, Nicolucci, and Sergi have alike collected evidence to prove that the whole basin of the Po River, now a strongly brachycephalic centre, was in the neolithic period populated by this long-headed type.* In other words, Italy, from end to end, was once uniform anthropologically in the head form of its people; in the south it is to-day still true to the primitive and aboriginal type. As far north as Rome no change can be detected between the modern and the most ancient skulls.† For France, a recent summary of the human remains of the late stone age, based upon nearly seven hundred skeletons or skulls, shows an overwhelming preponder-

* *Vide page 262 supra.*

† Calori, 1868, p. 205; Nicolucci, 1875.

ance of this long-headed type.* The round-heads were almost entirely absent in the beginning, as we showed them heretofore to have been in the British Isles during the same epoch.† France was apparently very unevenly populated. In all the uplands, especially the central plateau of Auvergne, human remains are less abundant, although when occurring being of the same decidedly long-headed type ‡—this, be it remembered, in the same district where to-day one of the round-headed populations in the world resides. For Germany, investigation all points the same way. Ranke* has exhibited the chronological development with great clearness for Bavaria. This region corresponds to northern Italy in its proximity to the main core of the living Alpine type. In Bavaria, now like the Po basin the seat of a purely brachycephalic population, the paleolithic inhabitants were exclusively long-headed. The average index of seven crania of this most ancient epoch Ranke finds to be 76. At the time of the early metal period a large part of the racial substitution had apparently taken place, broad-headedness being quite prevalent. After a diminution of the cranial index, during the period of the *Völkerwanderung*, it again rose to its present figure (83), as it appears in the modern broad-headed Bavarians. This agrees even in details all too closely with the independently discovered data for France to be a mere coincidence.

As for the outlying parts of Europe, the same law holds good without exception. Thus in Spain, whether judged by crania from the caves and dolmens or from the kitchen middens of Mugem, the modern population is almost an exact counterpart of the most ancient one.|| A slight increase in breadth

* Salmon, 1895. *Vide* seriation curve on p. 116 *supra*. G. de Mortillet, 1878 and 1897, p. 275; Reinach, 1889, ii; and Hervé, 1892, give convenient summaries also.

† Page 306 *supra*.

‡ Durand and De Lapouge, 1897-'98, reprint pp. 13 and 57.

* 1897 a, pp. 58-65. Cf. Kollmann, 1881-'83 and 1882 a; Virchow, 1872 b; Ammon, 1893, p. 66. Ecker, 1865, p. 79, said mixed; but von Hölder, 1876, p. 20, found purer. For Alsace-Lorraine, also true; Blind, 1898, p. 4.

|| Oliviera, in Cartailhac, 1886, pp. 305-316; Jacques, in Siret, 1887, pp. 273-396; and also 1888, p. 221; Olóriz, 1894 a, pp. 259-262; and Antón, 1897.

of head is noticeable, for even the long-headed Spaniards, like the French as well, scarcely equal the absolutely negroid head form of the earliest inhabitants. The same fact confronts us in Scandinavia. Long-headed as the people are to-day, they constitute a less pronounced type than their prehistoric ancestors. All authorities agree upon this point.* Turning next toward the east, we have already cited the testimony for the Slavic countries.† It admits of no possible doubt. And, last of all, even as far as the Caucasus, beneath its present brachycephalic population there is evidence that the aboriginal inhabitants were clearly long-headed.‡ Thus we have covered every part of Europe, emphasizing the same indubitable fact. Only in one place—in the highest Alps—is this law unverified. It seems as if this inhospitable region had remained uninhabited until a later time.

Assuming it as proved, therefore, that the first population of Europe was of this quite uniform type of head form, what do we know of its other physical characteristics? This concerns the second half of our primary proposition. That is to say, may we decide to which branch of the living long-headed race it belonged; that of the tall, blond Teuton or of the shorter-statured, dark-complexioned Mediterranean type? It is a matter of no small moment to settle this if possible. Unfortunately, we can prove nothing directly concerning the complexion, for of course all traces of hair have long since disappeared from the graves of this early period. Presumptively, the type was rather brunet than blond, for in the dark colour of hair and eye it would approach the foundation tints of all the rest of the human race. The light hair and blue eye of northern Europe are nowhere found in any appreciable proportion elsewhere, save perhaps among the Ainos in Japan, an insignificant people, too few in numbers and too remote to affect the generalization. If, therefore, as all consistent students of natural history hold to-day, the human races have evolved in the past from some common root type, this pre-

* Von Dueben, 1876; A. Retzius, 1843; Arbo, 1882; Montelius, 1895 b, p. 31; Barth, 1896.

† Page 352 *supra*.

‡ Chantre, 1887, ii, p. 181.

dominant dark colour must be regarded as the more primitive.* It is not permissible for an instant to suppose that ninety-nine per cent of the human species has varied from a blond ancestry, while the flaxen-haired Teutonic type alone has remained true to its primitive characteristics.

We are strengthened in this assumption that the earliest Europeans were not only long-headed, but also dark-complexioned, by various points in our inquiry thus far. We have proved the prehistoric antiquity of the living Cro-Magnon type in southwestern France; and we saw that among these peasants the prevalence of black hair and eyes is very striking. And comparing types in the British Isles, we saw that everything tended to show that the brunet populations of Wales, Ireland, and Scotland constituted the most primitive stratum of population in Britain. Furthermore, in that curious spot in Garfagnana, where a survival of the ancient Ligurian population of northern Italy is indicated, there also are the people characteristically dark.† Judged, therefore, either in the light of general principles or of local details, it would seem as if this earliest race in Europe must have been very dark. It was Mediterranean in its pigmental affinities, and not Scandinavian.‡

As to stature, a trait in which the Teuton and the Iberian differ markedly from one another to-day, we have abundant evidence that this neolithic population was more akin to the medium-statured French than to the relatively gigantic Germans and Scandinavians.* The men of this epoch were not, to be sure, as diminutive as the modern south Italians or the Spaniards; they seem rather to approximate the medium height of the inhabitants of northern Africa. These Berbers and their fellows, in fact, shading off as they do into the negro race south of the Sahara, we must regard as having least departed from the aboriginal European type. And in Europe proper, the brunet long-headed Mediterranean race is but slightly aberrant from it. It may have become stunted by too

* Cf. Schaffhausen, 1889, p. 70.

† Livi, 1896 a, p. 153.

‡ This flatly contradicts Keane's affirmation (*Ethnology*, p. 376), based upon antiquated data from De Quatrefages.

* Cf. page 307 *supra*, for example.

protracted civilization; it may have changed somewhat in facial proportions; but, on the whole, it has remained true to its ancestral image. Call it "Atlanto-Mediterranean" with Deniker, or "Ibero-Pictish" with Rhys⁽⁹⁰⁾, belief that a single fairly uniform physical type once prevailed throughout western Europe "from Gibraltar to Denmark" is daily growing in favour.

III. It is highly probable that the Teutonic race of northern Europe is merely a variety of this primitive long-headed type of the stone age; both its distinctive blondness and its remarkable stature having been acquired in the relative isolation of Scandinavia through the modifying influences of environment and of artificial selection.

This theory of a unity of origin of the two long-headed races of Europe is not entirely novel. *Europaeus*⁽⁷⁶⁾ proposed it twenty years ago. Only within the last decade has it attained widespread acceptance among the very best authorities: from the status of a remote possibility attaining the dignity of a well-nigh proved fact.* We affirm it as the best working hypothesis possible in the light of recent investigations. It will be seen at once that this theorem rests upon the assumption that the head form is a decidedly more permanent racial characteristic than pigmentation. In so doing it relegates to a secondary position the colour of the hair and eyes, which so eminent an anthropologist as Huxley has made the basis of his whole scheme of classification of European peoples. Brinton and even Virchow⁽⁹⁸⁾ have likewise relied upon these latter traits in preference to the phenomena of craniology in their racial classifications. Nevertheless, with all due respect to these distinguished authorities, we do not hesitate to affirm that the research of the last ten years has turned the scales in favour of the cranium, if properly studied, as the most reliable test of race. Tomaschek,[†] is surely right in applying Linnæus' cau-

* Bogdanof, 1893, p. 23: Niederle, 1896 a, p. 131; and in *Globus*, lxxi, No. 24: Sergi, 1895 a, p. 87; 1898 a, chap. ix, and 1898 b especially: A. J. Evans, 1896. To Lapouge (1889 a, p. 187) apparently belongs credit for prior statement. Canon Taylor (1890, p. 123) hints at it. The wide extension of the Cro-Magnon race, already traced (p. 177 *supra*), fully bears out the theory. Cf. de Lapouge, 1899, p. 36 *et seq.*

† Cited by O. Schrader, 1890, p. 102.

tion concerning the lower animals to man, *Nimium ne crede colori*. We know that brunetness varies with age in the same individual—that is one proof of its impermanence. In a preceding chapter we have devoted much attention to proving also that there is a factor of the environment in mountainous or infertile regions which operates to increase the proportion of blond traits among men. We did not seek in these cases to determine whether such changes were due to climate alone or to the defective nutrition which too often attends a poverty of environment. It is a well-recognised law in the geographical distribution of lower forms of life that two hundred and fifty feet increase in altitude is equivalent to one degree's remove in latitude from the equator. If this be true applied to man, it would lead us to expect a steady increase of blondness toward the north of Europe, a fact which all our maps have substantiated fully. Experience in colonizing Africa to-day indicates that this adaptation of the Teutonic race to a northern climate constitutes a serious bar to its re-entry into the equatorial regions. May not this change physiologically be correlated in some way with the modified pigmentation?* We may assume, in other words, that as the primitive dark type of the stone age gradually spread over northern Europe, environmental influences slowly, very slowly, through scores of generations, have induced a blond subvariety to emerge. Its differentiation would in such an event be commensurate with the distance from its original southern centre of migration. In so far as this process is concerned, leaving other details open for the severest criticism later, Penka and his disciples seem to have been in the right. This is the thought clearly stated by Marshall in his Biological Lectures, that “the white man and the negro have been differentiated through the long-continued action of selection and environment.”†

Climate as an explanation for the derived blondness of the Teutonic race is not sufficient by itself to account for the phenomenon. Its blondness is something more than a direct product of the fogs of the German Ocean. This is proved at once by

* Page 558 *infra*. Cf. also Beddoe, 1893, p. 10.

† Cited by Keane, 1896, p. 375.

a significant fact on which we laid emphasis in an earlier chapter—viz., that blondness not only decreases as we proceed southward from Scandinavia, but in an easterly direction as well. In other words, the Russians at the latitude of Norway and Sweden are far more brunet in type than the Scandinavians. How shall we reconcile this with our environmental hypothesis? In the first place, the hordes speaking the Slavic languages are comparatively recent immigrants in that part of Europe; they are physically allied to the broad-headed Alpine type. For this reason, comparisons between Scandinavia and the lands directly east of it are vitiated at once. But there is yet another reason why we may expect these Teutons to be notable even in their own latitude by reason of their blondness. It is this: that the trait has for some reason become so distinctive of a dominant race all over Europe that it has been rendered susceptible to the influence of artificial selection. Thus a powerful agent is allied to climate to exaggerate what may once have been an insignificant trait. Were there space we might adduce abundant evidence to prove that the upper classes in France, Germany, Austria, and the British Isles are distinctly lighter in hair and eyes than the peasantry.* It is no coincidence that *caste* and *colour* are of common derivation in the Sanscrit language. The classical Latin writers abound in testimony to this effect. The Teutonic conquerors of prehistoric times, the *Reihengräber* for example, were of this type. Both tall stature and blondness together constitute insignia of noble descent. Since the time of the Eddas, the servile ones have always been described as short brunets, according to von Hölder (**). Borrow tells us in his *Bible in Spain* that “negro” is an opprobrious epithet even in that dark country. Gummere has collected some interesting materials from mediæval literature on this point.† The thrall or churl is invariably a dark type, the opposite of the flaxen-haired, blue-eyed jarl or earl. The rule has been effective in painting. Christ a blond,

* Von Hölder, 1876, p. 15; Beddoe, 1870, p. 177, and 1885, p. 187, comparing different classes in Cork, Ireland; Taylor, 1889, p. 244; Mackintosh, 1866. Cf. pages 283, 295, and 352 *supra* for examples.

† *Germanic Origins*, pp. 62 seq. Cf. Beddoe, 1893, p. 13.

the two thieves as notably dark, was long the invariable rule in artistic composition.* Let us suppose, then, that such an opinion concerning nobility became widespread; suppose that it were intensified by the splendid military and political expansion of the Teutons in historic times all over the continent; suppose it to have become the priceless heritage of people more or less isolated in a corner of Europe! Is there any doubt that, entirely apart from any natural choice exerted by the physical environment, an artificial selective process would have been engendered, which in time would become mighty in its results? Is it not permissible to ascribe in some measure both the patent blondness of this Teutonic race and its unique stature as well to this cause? This is our hypothesis at all events.

IV. *It is certain that, after the partial occupation of western Europe by a dolichocephalic Africanoid type in the stone age, an invasion by a broad-headed race of decidedly Asiatic affinities took place. This intrusive element is represented to-day by the Alpine type of central Europe.*

We know that the broad-headed layer of population was not contemporary with the earliest stratum we have described above, because its remains are often found directly superposed upon it geologically. From all over western Europe comes testimony to this effect. We have seen in preceding chapters how clear the distinction was in Britain, Russia, and northern Italy.† France gives us the clearest proof of it. Oftentimes where several layers of human remains are found in caves or other burial places, the long-headed type is quite unmixed in the lowest stratum; gradually the other type becomes more frequent; until it outnumbers its predecessor utterly. It appears as if in Gaul the Alpine type first entered over two routes, and it is curious to note that these did not in any way follow the usual channels of immigration; for the broad-headed race seems to have come by infiltration, so to speak, following along the upland districts and the mountain chains. Sal-

* Jacobs, 1886 a, p. xxvi, reprint; also Beddoe, 1861 b, p. 186, who affirms that till the second century Christ was depicted as dark.

† Pages 262 and 308 *supra*, and 499 *infra*.

mon,* who has traced this movement archæologically in great detail, finds the first appearance of the new-comers in the vicinity of the Ardennes plateau, coming into France from the northeast. Their second avenue of approach was directly from the high Alps, crossing the Rhone, and thence over Auvergne toward the southwest.† This central plateau, in fact, like the Alps, seems to have been first settled at this period. The whole basin of the Seine was overflowed, and the incoming human tide swept clear out to the point of Brittany, where it has so completely held its own even to this day in relative purity. Topinard (⁹⁷) perhaps slightly overstates the case when he ascribes the cast of eyes among certain Breton types to an Asiatic descent. But current opinion about the Oriental origin of the brachycephalic type in western Europe is based upon competent testimony of this kind.‡

The intensity of the supersession of an old race by a new one becomes more marked in proportion as we approach the Alps, the present stronghold of the Alpine broad-headed race. Nevertheless, in the mountains themselves, as we have already said, no displacement of an earlier population seems to have been necessary; for from Switzerland, Auvergne in south central France, and the German Alps eastward, the inhospitable highlands seem to have been but sparsely if at all occupied by the earlier long-headed races. At all events, it is certain that in these restricted areas the broad-headed type is the most primitive.* There it has remained in relative purity ever since. From the earliest remains of the lake dwellers; before bronze or iron were known; before many of the simpler arts of agriculture or domestication of animals were developed; man has in these Alps remained perfectly true to his ancestral

* 1895. Cf. Topinard, *Anthropology*, 1890, p. 441, for succinct statement; as also Hervé, 1894 b, and 1896; Houzé, 1883; and Collignon, 1881-82.

† Collignon, 1894 b, p. 69; Lapouge and Durand, 1897-'98.

‡ Collignon, 1894 a, p. 9. Sergi's later work, 1898 a, chapter vi.

* Ranke, 1897 a, is particularly good on this. While in middle Bavaria a great increase of brachycephaly has taken place; in the southern part broad-headedness is certainly aboriginal. Cf. also von Hölder, 1880.

type.* We can add art after art to his culture, but we can not till very recent times detect any movement of population, after the first occupation in a state of relative savagery by this broad-headed race.† It is a surprising instance of the persistency of physical types.

The extent of this first occupation of Europe by the Alpine race was once much broader than it is to-day. Evidence accumulates to show that it spread widely at first, but that it was afterward obliged to recede from its first extravagant claims to possess all Europe. In a former chapter we saw that all along the southwest coast of Norway clear evidence of inter-mixture with this broad-headed type appears. The peasantry show a distinct tendency in this direction. In Denmark the same thing is true; the people are not as pure Teutons as in Hanover, farther to the south. We also know that this race invaded Britain for a time, but was exterminated or absorbed before reaching Ireland.‡ A very peculiar colony of these Alpine invaders seems also to have so firmly intrenched itself in the Netherlands that its influence is apparent even to this day. There can be little doubt that the modern Zealanders date from this remote period.* They may be considered as a link in the chain connecting the Alpine type in Scandinavia and Denmark with its kind in the central European highlands. In the opposite direction the intrusive type seems also to have with difficulty entered Spain; for, as we have shown, the population of the mountainous northwest provinces is even at this present day less purely Iberian in type by reason of it.|| One spot alone south of the Mediterranean Sea was perceptibly affected by it; recent evidence from the island of Gerba off Tunis proving such colonization to have taken place.¶ In the eastern half of Europe the occupation was more or less complete, with the sole exception, as we have seen, of the lower Danubian plain. Apparently, also, this type seems to have been unable

* Studer and Bannwarth, 1894, pp. 13 *et seq.*; Rütimeyer and His, 1864, p. 41; Zuckerkandl, 1883; Kollmann and Hagenbach, 1885 a.

† Page 501 *infra*.

‡ Page 308 *supra*. Garson, 1883, p. 81, finds it in the Orkneys, however.

* Page 297 *supra*.

|| Page 274 *supra*.

¶ Bertholon, 1897. Cf. Collignon, 1887 a, p. 218.

to hold its own in eastern Russia. The only bond of union of the race with its congeners in Asia is by way of Asia Minor, over the primitive population now overlaid by the Turks. If it entered Europe from the East, as is generally assumed, it surely must have come by this route, for no signs of an entry north of the Caspian are anywhere visible.

What right have we for the assertion that this infiltration of population from the East—it was not a conquest, everything points to it as a gradual peaceful immigration, often merely the settlement of unoccupied territory—marks the advent of an overflow from the direction of Asia? The proof of this rests largely upon our knowledge of the people of that continent, especially of the Pamir region, the western Himalayan highlands. Just here on the “roof of the world,” where Max Müller and the early philologists placed the primitive home of Aryan civilization, a human type prevails which tallies almost exactly with our ideal Alpine or Celtic European race. The researches of De Ujfalvy,* Topinard, and others localize its peculiar traits over a vast territory hereabouts. The Galchas, mountain Tadjiks, and their fellows are gray-eyed, dark-haired, stocky in build, with cephalic indexes ranging above 86 for the most part. From this region a long chain of peoples of a similar physical type extends uninterruptedly westward over Asia Minor and into Europe.

The only point which the discovery of a broad area in western Asia occupied by an ideal Alpine type settles, is that it emphasizes the affinities of this peculiar race. It is no proof of direct immigration from Asia at all, as Tappeiner † observes. It does, however, lead us to turn our eyes eastward when we seek for the origin of the broad-headed type. Things vaguely point to an original ethnic base of supplies somewhere in this direction. It could not lie westward, for everywhere along the Atlantic the race slowly disappears, so to speak. That the Alpine type approaches all the other human millions on the Asiatic continent, in the head form especially, but in hair colour and stature as well, also prejudices us in the matter; just as

the increasing long-headedness and extreme brunetness of our Mediterranean race led us previously to derive it from some type parent to that of the African negro. These points are then fixed: the roots of the Alpine race run eastward; those of the Mediterranean type toward the south.

Before we leave this question we must clear up a peculiar difficulty. If the Alpine broad-headed race entered western Europe with sufficient momentum to carry it clear across to the British Isles, up into Norway, and down into Spain, intruding between and finally separating the more primitive long-headed population into two distinct groups, why is it everywhere to-day so relegated to the mountainous and infertile areas? This is especially true wherever it comes in contact with the Teutonic race in the north. It is one of the most striking results of our entire inquiry thus far, this localization of the Alpine type in what we have termed areas of isolation. One is at a loss to account for this apparent turning back of a tide of prehistoric immigration. The original, more primitive races must once have yielded ground before the invader; our prehistoric stratification shows it. Why have they now turned the tables and reoccupied all the more desirable territory, driving their intrusive competitor to the wall? Were there proof that the original invasion of our Alpine race from the East had been a forcible one, an answer to this would be afforded by a study of culture; for it is now accepted generally, as we shall seek to show, that many arts of civilization have entered western Europe from the East. Hence if, as we say, the invasion by the broad-headed race had been by force of arms, every advantage would have been on the side of the more civilized race against the primitive possessors of the soil. The clew to the situation would have lain in the relative order in which culture was acquired by the competing populations. It would then have been possible that the Alpine invaders, penetrating far to the west by reason of their equipment of civilization, would have lost their advantage so soon as their rivals learned from them the practical arts of metallurgy and the like. Unfortunately for this supposition, the movement of population was rather an infiltration than a conquest. How may we explain this?

Our solution of the problem as to the temporary supersession of the primitive population of Europe by an invading race, followed by so active a reassertion of rights as to have now relegated the intruder almost entirely to the upland areas of isolation, is rather economic than military or cultural. It rests upon the fundamental laws which regulate density of population in any given area. Our supposition—it is nothing more—is this: that the north of Europe, the region peculiar to the Teutonic race to-day, is by Nature unfitted to provide sustenance to a large and increasing population. In that prehistoric period when a steady influx of population from the East took place, there was yet room for the primitive inhabitants to yield ground to the invader. A time was bound to come when the natural increase of population would saturate that northern part of Europe, so to speak. A migration of population toward the south, where Nature offered the possibilities of continued existence, consequently ensued. This may have at times taken a military form. It undoubtedly did in the great Teutonic expansion of historic times. Yet it may also have been a gradual expansion—a drifting or swarming forth, ever trending toward the south. We know that such a migration is now taking place. Germans are pressing into northern France as they have always done. Swiss and Austrians are colonizing northern Italy; Danish immigration into Germany is common enough. Wherever we turn we discover a constantly increasing population seeking an outlet southward. The ethnic result has been therefore this: that to-day the Teuton overlies the Alpine race, while it in turn encroaches upon, submerges the Mediterranean type. Thus do economic laws, viewed in a broader way, come to the support of ethnic facts. Other problems concerning population are immediately suggested. These we shall consider in a succeeding chapter.

Language in its bearing upon the question of European origins may be studied from two distinct points of view. These must be carefully distinguished from one another. The first we may term structural analysis. By this we mean study of the relationships existing between the various members of the

great inflectional family from Sanscrit to English or Celtic. Geographical probabilities, based upon the present distribution of these several languages in Asia and Europe, form a not inconsiderable element in this first philological mode of study. Thus, for example, the present contiguity of the Teutonic, Lithuanian, and Slavic languages in Europe is strongly corroborative of their close structural affinity. The second kind of analysis has been aptly called "linguistic palaeontology." It is a study of root words, not in and for themselves philologically, but rather as indications of a knowledge of the things which they denote. Thus a Sanscrit word for "lion" implies acquaintance with that mammal, even as a word for "father-in-law" might denote the existence of definite domestic relationships among those who used the Sanscrit language. This second mode of study is thus mainly concerned with words as indicative of things; while the first has to do primarily with grammatical structure. The relative value of these two kinds of linguistic investigation as applied to the study of European origins is very different. The first is by far the more important and trustworthy in every respect. The second is more seductive in its attractiveness for those who have a thesis to prove. Only a master of the science of philology is competent to make use of the first. The second has long been the plaything of *dilettanti*, both linguistic and anthropological.

More than a century has now elapsed since the first discovery by Sir William Jones of a distant relationship between Sanscrit and the classic languages of Europe. Definite proof of this was first afforded by Bopp in 1835, since which time the bonds of structural affinity have been drawn continually closer by the continued researches of the masters of philology.* It is now accepted as proved beyond all doubt that not only all the languages of Europe, except the Finnic, Basque, Magyar,

* The foremost authority who has summarized the progress of this work is Otto Schrader, *Sprachvergleichung und Urgeschichte*, Jena, 1883. The second edition, translated by Jevons, as *Prehistoric Antiquities of the Aryan People*, London, 1890, is a standard work. Canon Taylor, 1890, gives a succinct abbreviation of this. Reinach, 1892, does the same, with many valuable additions from French sources. *Vide Index* under "Aryans" for a list of other writers.

and Turkish, but many of those of Persia, India, and western Asia, are derivatives from a common source. That the location of this parent language must have been in Asia was suggested by two considerations: First, that the more primitive languages, and, secondly, that the more primitive peoples and civilizations lay in this part of the world. Such were the assumptions upon which the earlier philologists proceeded, in all their attempts to discover the source of this most highly evolved type of language. Pictet, in 1859 and 1877, was the first to give extended currency to this view of Asiatic derivation. Max Müller in his lectures on the Science of Language in 1861, became its ardent exponent. By him the term Aryan, invented to designate the whole inflectional family of languages, was also indiscriminately applied to an ideal "Aryan race." This eminent authority has lived to repent of his ways in so doing, as we shall see; but for more than a generation the entire question of physical origins was prejudiced by his untoward assumption. The conclusions of the philologists gained ready and wide acceptance among historians and students of culture, Mommsen, Lenormant, and others serving as ready examples, followed by a host of others of lesser importance.

Purely philological considerations, entirely apart from anthropological and cultural ones, of which we shall speak separately, have done much of late to weaken the Asiatic hypothesis. Foremost among these, with Whitney and Spiegel, was the discovery of highly archaic features, structurally, in several other members of the family, notably in Lithuanian, Armenian, and Icelandic. Judged by the standard of archaism in structure, even Greek, says Sayce,* is entitled to priority over Sanscrit. This at once undermined the entire argument based upon the supposed primitiveness of the sacred languages of the East. Furthermore, it was justly argued that a comparison between modern speech and ancient and extinct classical documents was entirely fallacious. Either modern Persian or Hindustanee should be compared with Keltic or German, or else parallels should be drawn between the most

* 1887, p. 172.

ancient records from the west of Europe and their contemporaries in the Orient. Since the sacred books of the East immeasurably antedate any written records in Europe, it was but natural, these objectors urged, that they should be more archaic. The fact that, even making due allowances for the difference of time, Lithuanian should still be distinctly primitive in its formation, did much to cast doubt upon the older view of Asiatic origins therefore.*

Purely philological evidence in favour of European Aryan origins of a different order were advanced by Omalius d'Halloy and Latham. In calling attention to the archaic features of the Lithuanian language, Latham followed the course of reasoning already described in the preceding paragraphs. To this he added another argument largely based upon geographical probability. We may give the gist of it in his own words, from an edition of the *Germania* in 1851: † "When we have two branches which belong to the same family, and are separated from each other, one of which covers a larger area and shows the greater number of varieties, while the other possesses a narrower range and greater homogeneity, it is to be assumed that the latter is derived from the former, and not the reverse. To derive the Indo-Europeans of Europe from the Indo-Europeans of Asia is the same thing in ethnology as if in herpetology one were to derive the reptiles of Great Britain from those of Ireland."

One of the most suggestive lines of purely philological inquiry is that employed by two leading authorities in English—Canon Taylor (1888) and our own Dr. Brinton.‡ The argument is as follows: The highly evolved Aryan languages did not spring fully armed, Minerva-like, from the head of Zeus. They must have had more humble linguistic predecessors. The primary question, therefore, is a search not for Aryan origins, but for suitable ancestors from which to derive them. Their most probable source must have been in a member of the great

* Max Müller, in his *Biography of Words*, 1888, p. 94, offers but a weak denial of this archaism of Lithuanian. It is recognised by all experts in philology to-day. † Schrader, 1890, p. 86.

‡ *Races and Peoples*, 1890, pp. 148 *et seq.*

agglutinative family of languages now prevalent over Asia and Africa. In Europe the only representatives of this more primitive non-inflectional type still extant—exclusive of Turkish and Magyar, which we know to be recent immigrants—are the Basque, the Finnic, and the Berber. Brinton is inclined to derive the Aryan from this third source: the languages of the Hamitic peoples of northern Africa. Keane,* following out this thought, is inclined to regard the Basque as another European relic of the same primitive stock. This theory of an Afro-European origin of the Aryan speech has much to recommend it, especially in view of the undoubtedly negroid physical affinities of the most primitive substratum of European population. Its principal defect as yet is the extreme tenuity of the proof of any linguistic relation not only between Basque and Berber, but also between Hamito-Semitic and Aryan. Von der Gabelentz has many powerful opponents in his attempted confirmation of this first relationship. The second affinity underlying Dr. Brinton's suggestive hypothesis, is likewise discredited by many philologists of note,† although supported by a few ardent advocates.

Proof that of all the primitive languages of Europe, Finnic has the best right to consideration as a direct ancestor, or perhaps, we had better say, an elder brother in the Aryan family, is not wanting. This theory of Canon Taylor's,‡ based upon Weske's data, certainly has by far the most geographical probability upon its side. We necessarily, of course, deny absolutely all validity to any of Taylor's attempted anthropological proof, for reasons which have already been given. He too, like so many others, seems somehow to mix up the Aryan languages with the idea of blondness. The seductiveness of Penka and Pösche is indeed difficult to withstand. But, entirely apart from this, his philological argument is a taking one. That Lithuanian is the most archaic of the west European languages gives it weight at the outset. Geiger's ("⁷⁸") proof of a very ancient contact between Aryan and Finnic, on which

* Ethnology, pp. 205 and 376.

† Sayce, 1887, p. 171; Max Müller, 1888, p. 111; and Schrader, *op. cit.*, p. 96. ‡ 1888 and 1890, pp. 285-295.

he based his theory of Baltic origins, has never been effectively gainsaid. Even if we ascribe the similarities to mere borrowing, the evidence of contact thereby necessarily implied, still remains. It may possibly have been contact with the eastern Finns, as Tomaschek * tried to prove, which would bring our scene of evolution out upon the steppes, where Schrader, from entirely different considerations, is disposed to place it. Other matters of importance forbid our further discussion of this interesting Finnic hypothesis. Granting with Reinach that it still rests upon somewhat "fragile evidence," † its tenability as a working hypothesis is well summarized by Schrader in styling it "a dream, without, however, denying that in the course of deeper research, especially in the region of Finnic, it may possibly prove to be true."

The most serious attack of a philological character upon the Asiatic hypothesis comes from Schmidt ^{"12"}. Until his time the simple theory prevailed of a swarming forth of languages from a common hive. This made it feasible to hope for the construction of a genealogical tree, whose topmost branches should be the highly evolved languages of western Europe, and whose trunk and roots should spring from a single hypothetical parent tongue. One insuperable difficulty soon appeared. Time brought no agreement among philologists either as to the root or the ramifications of such a tree. † No two could agree, for example, as to whether Greek stood between Latin and Sanscrit, or whether Slavonic lay nearer the root than Teutonic. That in each case the two were related could not be questioned, yet none could prove that the affinity was not merely collateral rather than along any line of direct descent. Schmidt placed the whole matter in a new light by a positive denial that any such genealogical tree could ever be constructed conformably to fact. According to his view, a series of local phonetic disturbances arose at some time in the dim past within the great undifferentiated body of a

* 1883. Cf. also Schrader, *op. cit.*, p. 104; Niederle, 1896 b; and the works of Mikkola, Krek, Castrén, and Miklosich. † 1892, p. 96.

† Schrader, 1890, pp. 49-73, discusses this fully. Cf. the diagrammatic tree in Keane, *Ethnology*, p. 380.

parent speech. From these local centres, each the core of future languages, spread ever-widening circles of variation. It was obviously necessary, he continued, that interference of one with another should speedily take place, resulting in coalescence or the appearance of affinity along their lines of contact. Thus both Greek and Latin, separately evolving from the primeval linguistic protoplasm, must of necessity mutually react upon one another in time. The resultant similarities would mean nothing more than merely collateral relationship. They would not in the least imply a derivation of one from the other. Schmidt's destructive criticism was tempered somewhat by Leskien, who nevertheless fully recognised the force of his objection to the old-fashioned theory. Delbrück, last of this series, even went so far as to deny that any single parent Aryan language ever existed in fact. Leaving this an open question for philological wranglers, the sobering effect of the whole attack upon the direct pedigree theory can not be doubted.

As a net result of the discussions above described, the present status of the Aryan question among philologists is somewhat as follows: Some—Delbrück, for example—deny that any parent language ever was; some, like Whitney, refuse to believe that its centre of origin can ever be located; some, with Fick and Hoefer, still adhere to Pictet's old theory of Asiatic derivation; some, notably Sayce, have been converted from this to the European hypothesis; Max Müller is wavering; while Brinton and Keane urge the claims of northern Africa; and some, following Latham and Schrader, have never found good cause for denying the honour to Europe from the first. Most of those who render a decision in this difficult matter do so upon far different philological grounds than those structural and fundamental ones with which we have heretofore been concerned. This leads us to consider our second group of philological reasonings, based upon the study of roots rather than grammar.

Linguistic palaeontology—that second department of pure philology, concerning itself with root-words as symbols of primitive ideas rather than with grammar or linguistic structure

—has endeavoured to compass two distinct ends. Of these, the first has been to reconstruct the culture of the ideal undivided Aryan-speaking people; the second, to locate their primitive civilization geographically. It has without doubt been highly successful, in conjunction with prehistoric archæology, in accomplishing the first of these tasks.* In our subsequent consideration of culture we shall have occasion to compare its results with those yielded by other cognate sciences. As to the second phase of its interests—geographical localization—the value of its inductions is highly questionable.

Benfey, in 1868, was perhaps the first to apply this mode of research to flora and fauna. From similar root-words for the bear, the wolf, the oak tree, the beech, and the fir, combined with the absence of others for the tiger and the palm, a European origin for the parent Aryan language was reasoned as a necessity. Difficulties soon presented themselves. Thus the Latin and Gothic root for "beech" is traced to a Greek word designating an "oak." Geiger and Fick interpret this as proof of a migration of language from a land of beeches to one of oaks—viz., from northwestern Europe to the south. Beech trees not being indigenous east of a line from Königsberg to the Crimea, the Aryan homestead is indicated, according to this view, with considerable precision.†

Perhaps the best way to give an adequate idea of the scientific limitations of any attempt to locate the supposedly undivided Aryan language by any such process of linguistic palæontology as this, will be to outline a few conclusions based entirely upon a comparison of root-words. We have already eliminated those quasi-linguistic theories which are tainted with anthropological considerations. Asia and Europe are about equally popular. Pictet (77), Van den Gheyn (81), and Biddulph (80) still find an Aryan home in the plateau of Pamir, in the vicinity of the Hindu-Koosh; Hehn (73) locates it in the Aral-Caspian Sea depression; Fick, "between the Ural, Bolor, and the Hindu-Koosh"; for Piétrement (79), says Schrader,

* Cf. Schrader, *op. cit.*, pp. 148, 149.

† On the interminable "beech" controversy cf. Schrader, 1883 b; Sayce, 1888 a; Penka, 1888; and Taylor, 1889.

" it was reserved to refer our forefathers to a place their departure from which certainly calls for no explanation—that is, Siberia " (latitude $49^{\circ} 20'$). Following slowly west, we next come upon Brünnhofer's Aryan centre in Armenia, which brings us to Europe. Two parts of this continent seem to answer equally well to the pre-requisites for an ideal Aryan home —viz., the steppes of southern Russia and the plains of northern Germany. To the first we are brought by Benfey (⁶⁹), by Spiegel (⁷¹), by Fr. Müller (⁷⁹), and by Otto Schrader (⁹⁰); to the Baltic plains by Lazarus Geiger (⁷⁸), von Loeher (⁸⁸), and Hirt (⁹²). All northern Europe, from the Urals to the Atlantic, between latitudes 45° and 60° , is none too extensive an area to suit Cuno (⁷¹). This is about as definite as Max Müller's (⁸⁸) conversion from the highlands of the Pamir to " somewhere in Asia." And all these variant and conflicting conclusions are drawn from the same source of information. Is it any wonder that the reader becomes sceptical?

Fully convinced, as we have said, of the great value of " Linguistic palaeontology " in any study of the origin or development of civilization, we submit that the above summary of conclusions as to the Aryan " bee-hive " is fully sufficient to show its worthlessness when applied to the solution of its geographical phases. Schrader, head and shoulders above any of his contemporaries, seems to be fully conscious of this. Even in the second edition of his great work, having ventured no guesses as to the Aryan homestead in his first edition, he justifies his choice of the Volga basin in Russia as follows: " It is plain that theoretically there is no reason why this must necessarily be sought in our quarter of the globe. It is, however, also clear, that if there can be found in it a locality which satisfies all requirements, that is the place to which we must look in the first instance."

What are these " requisites " for an Aryan homestead, judging by the root-words still common to most members of the inflectional family of European languages? They are not many. Would that they were more consistent with one another! *Snow* and *cold* are indispensable. Here we see why the Aryan cradle was necessarily swung in the first instance upon

the plateau of Pamir—"the roof of the world"—rather than either in India or Persia proper. We must also have *heat* and a quick alternation of seasons. No *spring* or *autumn* need apply. Add to this, *water*—a *river*; no *mountains*; few *trees*; a *wolf*—possibly a *lion*; surely a *bear* to climb said *trees*; no agriculture; most of the domesticated animals; *bees*; *grasshoppers*; and a few birds. As for social institutions, the "little paradise" of Justi and Fick, "penetrated with good sense and sound morality," has not materialized, according to the most rigid linguistic canons. A fairly definite patriarchal organization seems to be about all that can be assumed. Not much here, surely, from which to orient one's self in seeking the old home-stead. And yet what labour has been expended upon the un-profitable—nay, we affirm, the scientifically impossible—task. The impossibility of any sure location of this original centre of Aryan linguistic dispersion arises from two facts: First, the extreme poverty of the data; and, secondly, that both phenomena which must be correlated are entirely independent variables. For while, on the one hand, there is every chance of great change in word meanings—"new wine being put into old bottles"—on the other, most of the things designated by the root-words are migratory in themselves; either with man, as in the case of the domestic animals, or of their own initiative, as in the natural flora and fauna. Thus even if we allow with Pauli that the lion was known to the primitive Aryan-speaking people, who shall say that there were never lions in Europe? Times may have changed for lions as well as men since that far-distant epoch. As Max Müller⁽⁸⁸⁾ rightly observes, it is "almost impossible to discover any animal or any plant that is peculiar to the north of Europe and is not found sporadically in Asia also." Eliminating these doubly variable factors, but little is left except purely general concepts—air, water, heat, and cold—too indefinite and common to warrant any conclusions. It is unnecessary to emphasize these considerations further. The masters of philological research have all admitted their cogency and force. Max Müller,* in his later

* 1888, pp. 100-118.

more humble mood, confesses that "the evidence is so pliant that it is possible to make out a more or less plausible case" for any part of the world. It is only the lesser lights who still deal with roots as if they were mathematical symbols. Unfortunately, this confessed inadequacy of philology by and of itself to settle the interesting question as to European origins has induced a most mischievous commingling of physical anthropology and linguistics, which has been dire in its unscientific results. No greater unanimity as to conclusions has resulted, as might have been expected; and two formerly self-respecting and respected sciences have been plunged into an ill-merited disrepute thereby.

CHAPTER XVIII.

EUROPEAN ORIGINS (*continued*): RACE AND CULTURE.

Prehistoric archaeology is possessed of a distinct advantage over linguistics in the investigation of racial problems; for, as we have already observed, human remains are often discovered in connection with the implements, utensils, or trinkets by which the civilization of an extinct people is archæologically determined. To attempt even an outline of the cultural history of Europe would be obviously impossible in this place. It would fill a complete volume by itself alone. Furthermore, the short span of forty years since the inception of archæological science has not sufficed to produce complete unanimity of opinion among the leading authorities. Many important questions, especially concerning eastern Europe, are still awaiting settlement. All that we can hope to do is to describe what may be termed a few fixed points in European cultural history. This, as in our discussion of physical origins, we shall attempt to do by means of definite propositions, concerning which there is now substantial agreement.

I. *In western and southern Europe an entirely indigenous culture gradually evolved during the later stone age. This was characterized by great technical advance in fashioning implements, carvings, and designs in stone, bone, ivory, and copper; by the construction of dolmens and habitations of stone; by pottery-making; and possibly even by a primitive system of writing.*

A marked reaction has taken place during the last ten years among archæologists respecting the course of cultural development in France. It was long believed that after the first crude attempts of the palæolithic epoch an extended *hiatus* ensued, followed by the sudden appearance of a more highly

developed civilization, brought by an immigrant broad-headed race from the East. Two waves of invasion were described: the first bringing polished stone, a later one introducing bronze, cereals, agriculture, and the domestication of animals. Not even credit for the construction of the great stone dolmen tombs was granted to the natives in Gaul, for these were all ascribed to an invasion from the North. The undoubted submergence of the primitive long-headed population of France by a brachycephalic type from the East, to which we have already adverted, was held accountable for a radical advance in civilization. Even the existence of a bronze age was denied to this country by Bertrand, for example, it being maintained that the introduction of bronze was retarded until both metals came in together from the Orient in the hands of the cultural deliverers of the land. The absence of a distinct bronze age was speedily disproved by Chantre's (¹⁷⁸) remarkable researches in the Rhone Valley; but the view that France and western Europe were saved from barbarism only by a new race from the East still held sway. It is represented by the classical school of G. de Mortillet,* Bertrand,† and Topinard,‡ followed by Lenormant* and a host of minor disciples. The new school, holding that a steady and uninterrupted development of culture *in situ* was taking place, is represented notably by Reinach || in France and by Sergi ^A in Italy. Their proof of this seems to be unanswerable. Granting that it is easier to borrow culture than to evolve it, a proposition underlying the older view; it seems, nevertheless, that the West has too long been denied its rightful share in the history of European civilization.

* 1875, 1879 a. and 1883, and all through his *Matériaux*, etc.

† Cf. 1891, pp. 122, 163, and 195-231.

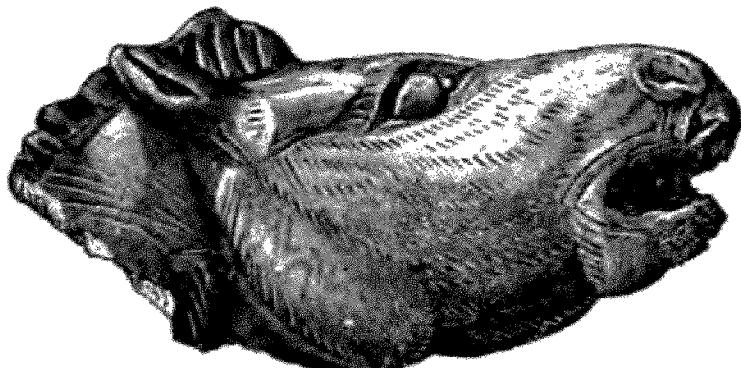
‡ *Éléments*, p. 400, for example.

* *Les Premières Civilisations*, etc., 1874.

|| *Le Mirage Orientale*, 1893 a; and in his admirable outline of sculptural origins in Europe (1894-'96).

^A *Arii e Italici*, Torino, 1898, especially pp. 199-220. Cf. his earlier 1895 a, pp. 25-32, for criticism of Reinach, holding that the Mediterranean basin and not midwestern Europe is entitled to the main credit for this indigenous culture.

A notable advance in the line of culture entirely indigenous to southwestern Europe has been lately revealed by the interesting discoveries by Piette at the station of Brassemouy and



Neolithic Ivory Carving. *Mas d'Azil.* (After Piette.*).

in the grotto of *Mas d'Azil*.† Carvings in ivory, designs upon bone, evidence of a numerical system, of settled habitations.‡ and, most important of all, of a domestication of the reindeer, of the horse, and the ox in the pure stone age occur; * and that, too, in the uttermost southwestern corner of Europe. In the lake dwellings of Switzerland, as also in Scandinavia, a knowledge of agriculture, pottery, and the domestication of animals is evinced, likewise as a native discovery. From other quarters of the continent in the stone age comes similar testimony to a marked advance of man culturally. The justly celebrated carving from *Thayngen*.|| on the opposite page, almost worthy of a modern craftsman, betrays no mean artistic ability. The man who drew it was far from being a savage, even if he knew no metals, and buried his dead, instead of cremating them.

A system of writing seems also to have been invented in western Europe as far back as the stone age.† Letourneau and Bordier have advanced good evidence to this effect, al-

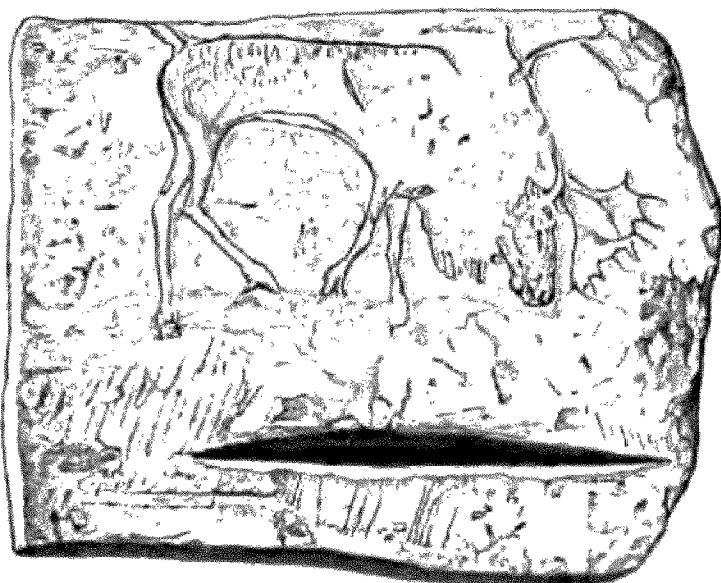
* By special permission. Further reproduction prohibited.

† Annex A of Bertrand and Reinach, 1891; and in *L'Anthropologie*, v and vi, 1894 and 1895, with supplement. ‡ Siret, 1887, p. 255.

* *Op. cit.*, p. 284. De Candolle and Sanson trace from the East. Cf. De Mortillet, 1879 b and 1879 c. Montelius, 1895 b, p. 30, finds evidence of the horse, ox, sheep, and swine. || Heim, 1874, and Merk, 1875.

† Reinach, 1893 a, p. 543-548. G. de Mortillet, 1897, denies the claim.

though it is not yet uncontestedly proved. The Phoenicians were perhaps antedated in their noted invention by the dolmen builders, by the lake dwellers of the earliest times, and, according to Sergi, also by the people of the Villanova pre-Etruscan culture in Italy. In an earlier time still in the Po Valley, as far back as the stone-age *Terramare* period, of which we shall speak later, pottery was made, and that, too, of a very decent sort. And all this time there is not the slightest evidence of contact with or knowledge of the East. As Reinach says, in no dolmen, no lake station, no excavation of the stone age is there any trace of an Assyrian or Babylonian cylinder, or even of an Egyptian amulet. Even the jade and nephrite found in western Europe from Switzerland to Norway, which has so long been regarded as proof of early commerce with the East, he denies as evidence of such contact. The case thus put may perhaps be over-strenuously stated, yet one can not but realize from it that western Europe has too long been libelled in respect of its native aptitude for civilization. This



Bone Carving. Thayngen. (After Bertrand, '91.)

is not constituted of bronze alone, nor is its trade-mark cremation. Thus, while an intensive outbreak of culture of a high order may not have arisen west of the Alps, it can no longer

be denied that the general standard of intelligence was surely rising of its own native volition.

II. Throughout the eastern Alpine highlands a culture far more highly evolved than the neolithic one in the West, and betraying certain Oriental affinities, appears at a very early time, a thousand years or more before the Christian era. This prehistoric civilization represents a transitional stage between bronze and iron.

In a secluded valley in Upper Austria, close to the border line of Salzburg, by the little Alpine hamlet of Hallstatt, a remarkable necropolis was discovered more than a half century ago, which marked an epoch in archæological research. Excavations at this place alone, far from any present considerable seat of population, have already revealed more than three thousand graves. The primitive culture here unearthed, represented by all kinds of weapons, implements, and ornaments, bore no resemblance to any of the then known classical ones of the Mediterranean basin. Its graves contained no Roman coins or relics. There was nothing Greek about it. It contained no trace either of writing or chronology. It was obviously prehistoric; there was no suggestion of a likeness to the early civilizations in Scandinavia. It was even more primitive than the Etruscan, and entirely different from it, especially in its lack of the beautiful pottery known to these predecessors of the Romans. Little wonder that von Sacken, who first adequately described it in 1868, and Hochstetter, who worthily carried on his researches, believed that Hallstatt represented an entirely indigenous and extinct Alpine civilization. On the other hand, so exceedingly rich and varied were the finds in this out-of-the-way corner of Europe, that another and quite different view seemed justifiable. Might this not be an entirely exotic culture, products gained by trade from all parts of the world being here deposited with their dead by a people who controlled the great and very ancient salt mines hereabouts? Neither of these interpretations of this find at Hallstatt have been exactly verified by later researches, and yet its importance has not lessened in the least. By later discoveries all over eastern Europe south of the Danube, from

the Tyrol over to the Balkan peninsula, as well as throughout northern Italy, Würtemberg, and even over into northeastern France, the wide extension of this civilization * proves that it must in a large measure have developed upon the spot, and not come as an importation from abroad. On the other hand, its affinity in many details with the cultures both of Italy and Greece proved that it had made heavy drafts upon each of these, profiting greatly thereby. The best opinion to-day is that it constitutes a link in the chain of culture between eastern and western Europe. As such it is of primary importance in any study of European origins.

The primitive stage of European civilization, to which the term Hallstatt is specifically applied by archæologists, is characterized by a knowledge both of bronze and iron, although the latter is relatively insignificant. Its rarity indicates that we have to do with the very beginnings of its use. In this early combination of bronze and iron the Hallstatt culture is in strong contrast with the rest of Europe. Almost everywhere else, as in Hungary, for example, a pure bronze age—sometimes one even of copper also—intervenes between the use of stone and iron. Here, however, the two metals, bronze and iron, appear simultaneously. There is no evidence of a use of bronze alone. Bearing in mind what we shall subsequently emphasize in the case of Scandinavia, that in that remote part of Europe man had to put up with the inferior metal for close upon a thousand years before the acquisition of a better substitute, it will be seen that in the case of Hallstatt a remarkable foreshortening of cultural evolution had ensued. Iron, as we have said, was still comparatively rare. Only in the case of small objects, less often in the blades of bronze-handled swords, does this more precious metal appear. But it is far

* Chantre, 1884; Hoernes, 1892; Bertrand and Reinach, 1894 a; Sergi, 1898 a; and Orsi (*Bull. Paletnologia Italiana*, xi, 1885, p. 1 *et seq.*) are best authorities. See also Hallstatt in the subject index of our supplementary Bibliography. Naue, 1895, describes it in Bavaria. Care should be taken, however, to distinguish two uses of the word, Hallstatt. One is generalized to denote any mixed or transition stage between bronze and iron. The other is applied to the particular local type, akin to that of Hallstatt in detail.

more common than in the earliest Greek civilizations made known to us by Schliemann and others.

Pages of description would not give so clear an idea of this early civilization as the pictures of their lives, which the Hallstatt people have fortunately left to us. These are found in *repoussé* upon their bronzes, and particularly upon their little *situlae*, or metallic pails. These *situlae* are, in fact, the most distinctive feature among all the objects which they have left to us.* By means of them their civilization has been most accurately traced and identified geographically. On the opposite page we have reproduced the design upon the most celebrated of these *situlae*, discovered by Deschmann in 1882 at Watsch in the Tyrol.† Another from Bologna, typical of the pre-Etruscan Italian time, will be found upon a later page. Upon each of these the skill manifested in the representations of men and animals is no less remarkable than the civilization which is depicted. The upper zone of this *situla* from Watsch apparently shows a festal procession, possibly a wedding, for a lady rides in the second chariot. The grooms and outriders betoken a party of distinction. As for the second zone, doubt as to its exact interpretation prevails. Hochstetter declares it to be a banquet, food and entertainment being offered to the personages seated upon chairs at the left. Bertrand is disposed to give it more of a religious interpretation. As for the contest between gladiators armed with the cestus, all is plain. The spectators, judges, even the ram and the helmet for reward of the victor, are all shown in detail. It is not necessary for us to cite more evidence. A civilization already far from primitive is surely depicted. As for its date, all are agreed that it is at least as early as ten centuries before Christ;‡ not far, that is to say, from the supposed Homeric epoch in Greece.

* Bertrand and Reinach, 1894, pp. 96 *et seq.*, give a complete summary, description, and bibliography of the *situlae* thus far discovered. Chantre, 1885, vol. ii, and Montelius, 1895 a, give many reproductions of their designs.

† Hochstetter, 1883, p. 170 *et seq.*, gives the best original description of it. Our reproduction is taken from this source.

‡ Hoernes, 1892, p. 529; Bertrand, 1876 a, second edition, pp. 207-216, fixes about 800 B. C.; but 1894 a, p. 80, carries it back to 1200-1300 B. C.



Bronze Situla. Watsch.
(After Hochstetter, '83.)

The Hallstatt civilization betrays unmistakable affinities with three other prehistoric European cultures, widely separated from one another. It contains many early Greek elements; it is very similar to a notable prehistoric culture in the Cau-



Bronze Breastplate. Olympia. (After Furtwaengler.)

casus Mountains; and it resembles most nearly of all perhaps the pre-Etruscan civilization in Italy. With the third of these—the Italian—it seems to have been most nearly upon terms of equality, each borrowing from the other, after a fashion of

which we shall have occasion to speak shortly.* On the other hand, the relation of the Hallstatt culture to that of Greece and Caucasia seems to be somewhat more filial rather than fraternal. In describing the area of this civilization we have seen how firmly it is intrenched all through the southern part of Austria-Hungary and well over into the north of the Balkan peninsula. A comparison of Furtwaengler's magnificent collection of objects from Olympia † with those of Hallstatt instantly reveals their similarities. To make this clear, we have reproduced one of the Olympian breastplates, ornamented with figures which at once suggest those upon the *situla* from Watsch above described. This design is doubly interesting. It shows us a slightly higher stage of the art of figural representation, as well as of conventional design. Not only the men and horses, but the borders, are far better drawn. More than this, we begin to detect a distinctly Oriental motive in other details. The bulls and the lions—lions are not indigenous to Europe nowadays—at once remind us of their Babylonian and Assyrian prototypes. We have entered the sphere of Asiatic artistic influence, albeit very indistinctly. This design here represented, it should be said, is rather above the average of the Olympian finds of the earlier epoch. Many of the other objects, especially the little votive figures of beasts and men, are much more crude, although always, as Hoernes observes, characteristic and rudely artistic in many ways. Through this Olympian stage of culture we pass transitionally on to the Mycenean, which brings up into the full bloom of the classic Greek civilization.‡

The Oriental affinities of the Hallstatt culture have been especially emphasized by the recent archæological discoveries at Koban, in the Caucasian territory of the Ossetes.* A stage

* Cf. Hochstetter, 1883, p. 199; Hoernes, 1889 and 1890.

† Die Bronzen und die übrigen kleineren Funde von Olympia, Berlin, 1892.

‡ Cf. Sophus Mueller, 1884; Reinach in L'Anthropologie, i, 1890, pp. 552–565; ibid., iv, p. 610; Montelius, 1892; Tsountas and Manett, Perrot and Chippiez, and the classical archæologists. A. J. Evans, 1896, contains much of interest in this connection.

* Described and superbly illustrated by Virchow, 1883 a, and Chantre, 1885–'87, especially ii, p. 187. Cf. also J. de Morgan, 1889, ii, chapter i.

of culture, transitional between bronze and iron, almost exactly equivalent to that of the eastern Alps, is revealed. Similarities in little objects, like fibulæ, might easily be accounted for as having passed in trade, but the relationship is too intimate to be thus explained. Hungary forms the connecting link

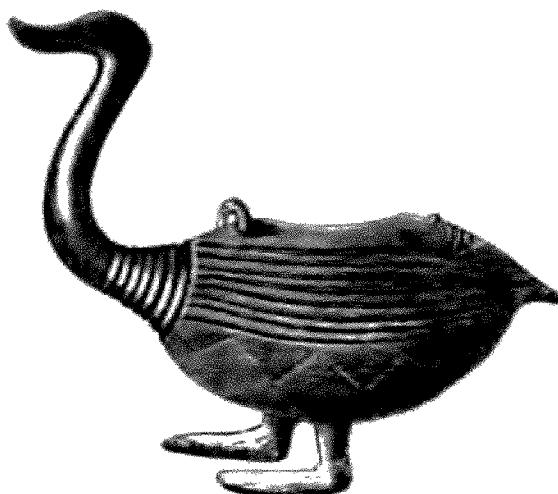
between the two. In many respects its bronze age is different from that of Hallstatt, notably in that the latter seems to have acquired the knowledge of iron and of bronze at about the same time. In Hungary the pure bronze age lasted a long time, and attained a full maturity. A characteristic piece is represented

herewith.* In respect of the representation of figures of animals such as these, Hallstatt, Hungary, and Koban are quite alike.

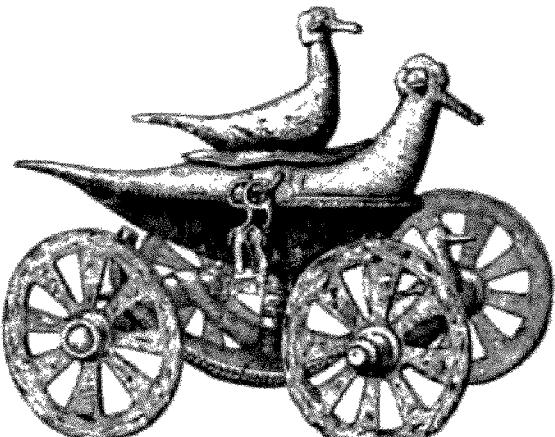
Have we proved that bronze culture came from Asia by reason of these recent finds in the Caucasus? Great stress has been laid upon them in the discussion of European origins. Are we justified in agreeing with Chantre † that two currents of culture have swept from Asia into Europe—one by the Cau-

* On Hungary, Hampel, *C. R. Congrès int. d'anth.*, session 8, Budapest, ii; and Hoernes, 1888 and 1889-'90, best; cf. also his 1892, pp. 405-411.

† 1884, p. 315.



Bronze Vessel. Hungary. (After Hampel.)



Bronze Chariot. Glasinac. (After Chantre, '85-'7.)

casus north of the Black Sea and up the Danube; the other across Asia Minor and into the Balkan peninsula, thence joining the first in the main centre of Hallstatt civilization, east of the Alps? The point seems by no means proved. Relationship does not necessitate parentage. Far more likely does it appear, as Reinach says,* that the Koban culture is a relic or an offshoot, rather than a cradle of bronze civilization. And even Chantre,† ardent advocate as he is of Oriental derivations, seems to feel the force of this in his later writings; for he confesses that Koban is rather from Mediterranean European sources than that Europe is from Koban. Most probable of all is it that both Hallstatt and Koban are alike derived from a common root in the neighbourhood of Chaldea.

III. *The Hallstatt (or Celtic?) civilization of bronze and iron roughly overlies the present area occupied by the brachycephalic Alpine race; yet this type is not always identified with the Oriental culture. It seems to have appeared in Europe in a far lower stage of civilization, and to have subsequently made progress culturally upon the spot.*

To trace any definite connection between race and civilization in Europe is rendered extremely hazardous scientifically, by reason of the appearance along with bronze of the custom of burning instead of burying the dead—their ashes being disposed in cinerary urns, jars, or other receptacles. By this procedure all possible clew to the physical type of the people is, of course, annihilated at once. It has become almost an axiom among archæologists that bronze culture and incineration are constant companions. Wherever one appears, the other may confidently be looked for. Together they have long been supposed to be the special and peculiar attributes of the new broad-headed immigrant race from the East. To prove this conclusively is, of course, absolutely impossible, for the above-mentioned reason. Of the two, it seems as if incineration would be a more reliable test of race than a knowledge of bronze; for burial customs, involving as they do the most sacred instincts and traditions of a people, would be most

* 1893 a, p. 561.

† 1885-'87, ii, p. 189.

persistently maintained, even throughout long-continued migrations.* The use of bronze, on the other hand, being a matter of obvious utility, and capable of widespread dissemination commercially, is seemingly of far less ethnic significance.

To indicate the uncertainty of proof in these matters, let us suppose that the Hallstatt civilization, for example, is the result of an immigration of a brachycephalic Oriental civilized race overlying a primitive native long-headed one. That seems best to conform to the data which northern Italy, at least, affords. Suppose the new people—call them Celts with the best authorities, if you please—brought not only bronze and iron, but the custom of incineration. Prior to their appearance inhumation was the rule. What would be the result if one attempted to determine the physical character of that people from a study of remains in their necropoli? All the crania to be found in the graves with the precious objects of bronze would in no wise represent the people who brought that bronze. They burned their bridges behind them at death, and disappeared for good and all. And the remains left to the archæologist would represent precisely that class in the population which had nothing to do with the main characteristics of its civilization. And then again, we must bear in mind that the interments in these necropoli as a whole, both with burned or buried dead, constitute a selected type. Neither Hallstatt, Watsch, nor any of the burial places of their type were open to the great mass of the common people. They were sacred spots, far removed among the mountains from any centres of population. Only the rich or powerful presumably had access to them. They are no more typical of the Hallstatt people, therefore, than interments in Westminster Abbey are representative of the English masses. All our data are necessarily drawn from a class within a class. Inductions from them must be very gingerly handled.

The situation above described seems to prevail almost everywhere in the Hallstatt cultural area. Two distinct burial customs denote possibly two separate peoples, the inhumers

* Bertrand, 1891, p. 196, has some interesting notes on this. Cf. Ranke, *Der Mensch.*, ii, p. 543.

being certainly the older. In the Hallstatt necropolis, for example, about one third of the graves once contained human remains, all the others containing merely ashes. So ancient are these graves that only eight crania from the hundreds of interments of the first class are available for study. These are of a pronounced long-headed type.* The modern populations of this part of Europe are, as we have seen, among the broadest-headed people in the world, as are also all the modern Illyrians. Yet from the great necropolis at Glasinac in Bosnia, with its twenty thousand tumuli, the meagre Hallstatt returns are amply corroborated.† The ancient inhabitants were as long-headed as they are pronouncedly of the opposite type to-day. Up in Bohemia and Moravia also, according to Niederle,‡ the first bronze-age people, such as we know them, were still dolichocephalic quite like their predecessors in the pure stone age. And here also is incineration just about frequent enough to make it uncertain whether the human remains are typical of the whole population or not.

Under these circumstances, three suppositions are open to us. We may hold that these long-headed crania of the Hallstatt people are worthless for any anthropological purposes at all. This one would certainly be tempted to do were the testimony, such as it is, not so unanimous. Or, secondly, we may assume that these long-headed Hallstatt people belonged to a period subsequent to the appearance of our Alpine type in western Europe. If we do so, we place them in the same class with the Teutonic race which so certainly appears overlying the Alpine one in the later iron age in Switzerland and throughout southern Germany. For the Helvetians and the *Reihengräber* conquerors from the north surely imposed a novel culture, albeit a militant one, upon the long-settled Alpine people, racially speaking. The Hallstatt civilization is immeasurably too early to permit of this hypothesis. At this

* Zuckerkandl, 1883, p. 96. On page 93 he gives data for the modern Hallstatt people. Cf. also Hochstetter, 1878, p. 319; Hoernes, 1892, p. 618; Weisbach, 1894, p. 241.

† Weisbach, 1897 b, and Radimsky, 1891.

‡ 1892 a, p. 78.

time the long-headed Teutonic peoples about Scandinavia were certainly vastly inferior in culture, as we shall attempt to prove shortly. Thus we are forced to the third conclusion if we admit the competency of our cranial evidence—namely, that the Hallstatt people in this early bloom of civilization in Europe were allied to the Mediterranean type of the south. No other source for such a dolichocephalic population is possible. Our stock of types of this kind is exhausted.

It does not require a great credulity to admit of this hypothesis, that the Hallstatt people were of Mediterranean type. Were not the Greeks, the Phœnicians, and the Egyptians all members of this same race? One single difficulty presents itself. Over in Italy throughout the valley of the Po an entirely analogous civilization to that of the eastern Alps occurs. Hallstatt and Villanova, Watsch and Bologna, are almost identical culturally. And yet over here in Italy the new culture of bronze and of incineration seems to be borne by a broad-headed people of the same type as the modern one. Thus, for example, at Novilara so long as the bodies were all inhumed the people were of the long-headed Mediterranean type once indigenous to the whole of Italy, now surviving, as we have seen, only in the southern half. On the other hand, when incineration begins to appear in this place, the human remains still left to us are of a mixed and far more broad-headed type.* It would seem admissible to assume that when the modern brachycephalic Alpine race submerged the native one it brought new elements of civilization with it. Many Italian authorities, at all events, agree in ascribing the new culture—call it Umbrian with Sergi, or proto-Etruscan with Helbig—to a new race of Veneto-Illyrian or Alpine physical proclivities.† What they have not definitely proved, however, is that any necessary connection between race and culture exists. There is much to show that the broad-headed race came in some time before the introduction of the new arts. Even in the later *Terramare* period preceding the Italian Hallstatt culture, when stone and copper only are in evidence,

* Sergi, 1898 a, pp. 122–129.

† Zampa, 1891 a, p. 77; Sergi, 1898 a, p. 138.

a change of physical type in the people apparently begins, just as also in France in the neolithic period.*

The most indubitable testimony that the Alpine race did not appear in western Europe, armed *cap-à-pie* with bronze and other attributes of culture, is afforded by the lake dwellings of Switzerland.† Here in the pile-built villages of the Swiss lakes we can trace an uninterrupted development of civilization from the pure stone age through bronze and into iron. Beginning at a stage of civilization, as Schrader in his great linguistic work observes, about equal to that of the ancient Aryan-speaking peoples judged by the root-words known to us; not only knowledge of the metals, but of agriculture, of the domestication of animals, and of the finer arts of domestic life, have little by little been acquired. Equally certain is it that no change of physical type has occurred among these primitive Swiss, at least until the irruptions of the Teutonic Helvetians and others at the opening of the historic period. From the very earliest times in the stone age a broad-headedness no less pronounced than that of the modern Swiss prevailed among these people.‡ Here would seem to be pretty conclusive proof that the Alpine race entered Europe long before the culture with which its name has been all too intimately associated.

In the outlying parts of Europe, perhaps even in Gaul, it is extremely doubtful whether any closer connection between race and culture exists than in the Alps. It has long been maintained that the brachycephalic people of the Round Barrows introduced bronze into Britain. Surely, as we have already shown, things point to that conclusion. Beddoe,* Dawkins,||

* Hervé, 1894 b.

† Keller's reports since 1858 are the main source. Munro, 1890, is best in English. Cf. also the works of Gross and others, in our supplementary Bibliography, under "Lake Dwellings."

‡ This fact has been established beyond doubt by the recent great work of Studer and Bannwarth, *Crania Helvetica Antiqua*, 1894. *Vide* p. 13. Sergi's attempt to interpret the data otherwise (1898 a, p. 67) is entirely erroneous. Gross's data apparently refer entirely to the later period of Teutonic invasions in the iron age (1883, p. 106). Cf. Munro, pp. 537 and 541. * 1893, p. 29. || 1880, p. 342.

and other authorities maintain it at all events. Yet Canon Taylor * makes it pretty evident that the new race arrived in Britain, as it certainly did in Gaul,† considerably in advance of any knowledge of the metals. As for Scandinavia, much the same relation holds true. Both race and culture, as we shall see, came from the south; but it is by no means clear that they arrived at the same time or that one brought the other.‡ In Spain, Siret * has asserted that bronze came in the hands of a new immigrant broad-headed race, but the more authoritative opinion of Cartailhac (***) discovers no direct evidence to this effect.

The final conclusions which would seem to follow from our tedious summary is this: That the nearly contemporaneous appearance of the Alpine race and the first knowledge of metals, indicative of Oriental cultural influences in western Europe, is more or less a coincidence. The first civilized peoples of the Hallstatt period seem to have been closely allied, both in physical type and culture, with the Greeks and other peoples of the classic East. Among them, perhaps over them, swept the representatives of our broad-headed Alpine type who came from the direction of Asia. These invaders may have been the Scythians, although the matter is incapable of proof. Pressure from this direction set both culture and population in motion toward the west, in much the same way that the fall of Constantinople in the fifteenth century induced the Renaissance in Italy.

IV. The remarkable prehistoric civilization of Italy is due to the union of two cultures: one from the Hallstatt region, having entered Europe by way of the Danube, the other coming from the southeast by sea, being distinctly Mediterranean. From these evolved the Umbrian and the Etruscan civilizations, followed in the historic period by the early Latin.

The earliest culture in Italy worthy the name is found in the *palaifitti* or pile dwellings in the northern lakes, and in the so-called *terramare* settlements in the valley of the Po.||

* 1890, p. 79.

† Hervé, 1894 b.

‡ S. O. Mueller, 1897, p. 307.

* 1887, p. 265.

|| *Vide map on page 264 supra.* Sergi, 1898 a, gives a full description of them. For original data consult files of *Bulletino di Paletnologia Italiana*.

The former are not distinguishable from similar structures in the Swiss lake dwellings, but the *terramare* are entirely peculiar to Italy. Their like is not found anywhere else in Europe. Briefly described, they were villages built upon raised platforms of earth, encircled by a moat, and generally having a ditch or small pond in the middle, in which an altar is erected. These complicated structures were built upon the low, marshy, alluvial plains along the Po, but show many points of similarity with the true pile dwellings. The people of this early period were in the pure stone age, with few arts save that of making the coarser kinds of pottery. From their osseous remains, they seem to have been of a long-headed type, quite like their predecessors, who were cave dwellers. After a time, without any modification of the modes of construction of their settlements, new elements appear among these *terramare* people, bringing bronze and introducing cremation. At about the same period, as we have said, the Alpine broad-headed race begins its submergence of the primitive Ligurian type, leading to the formation of the north Italian population as we see it to-day.* This type surely invaded Italy from the north and northeast.

From the foregoing considerations it will appear that there were two constituent streams of culture and also of men here uniting in the valley of the Po and on the northern slopes of the Apennines.† Possibly, as Chantre affirms, these two streams were from a common Oriental source, here being re-united after long and independent migrations.‡ At all events, a remarkable advance in culture speedily ensued, superior to either of those from which its elements were derived. For the civilization unearthed at Villanova, in the Certosa at Bologna, at Este, and elsewhere, while in much of its bronze work similar to the Hallstatt types, contained a number of added features, obviously either indigenous or brought directly from the south. The Hallstatt affinities are especially revealed in the *situlae* to which we have already called attention. That of Arnoaldi discovered at Bologna, betrays much

* Cf. p. 262 *supra*.

† On the Danube as a pathway of cultural immigration, cf. Bertrand, 1891, p. 256. ‡ Chantre, 1884, p. 316. Cf. p. 266 *supra*.

the same grade of skill in manufacture as the one from Watsch. Its flat development is shown by the accompanying cut. The



Arnoaldi Sintula, Bologna.
(From Revue Archéologique, '85.)

scenes represented are not dissimilar. The boxers armed with the cestus, the chariots, and horses closely resemble one another. No doubt of a close intercourse between the two regions of Bologna and Austria can possibly exist.

The influence of the second or native element in prehistoric Italian civilization appears most clearly in the Etruscan period. Etruria, lying south of the Apennines, was more essentially Italian, as we might expect, than the region about Bologna, where the Umbro-Hallstatt, or continental, culture flourished. It is easy to note the superiority in the former case. It is most clearly indicated in the pottery. Here we



Early Etruscan.



Pure Etruscan, Middle Period.

find an art which is truly indigenous to the climate and soil of the Mediterranean.

Popularly, the word "Etruscan" at once suggests the ceramic art; the progress effected in a short time was certainly startling. To give an idea of the sudden change, we have reproduced upon this page illustrations of typical bits of Italian pottery.* The first vase, prior to the full Etruscan culture, shows its crudity at once, both in its defects of form and the plainness and simplicity of its ornamentation. Such a vessel might have been made in Mexico or even by our own Pueblo Indians. In a century or two some teacher made it possible to produce the sample depicted in the next cut. Perfect in

* From Montelius, 1897.

form, notably graceful in outline, its decoration is most effective; yet it betrays greater skill in geometrical design than in the representation of animate life. The dog drawn on the girdle is still far from lifelike. Then come—probably after inspiration from Greek art—the possibilities in complex ornamentation represented by our third specimen. Not more pleasing in form; perhaps less truly artistic because of its ornativeness, it manifests much skill in the delineation of human and animal forms.

The advance in culture typified by our vases was equalled in all the details of life.* The people built strongly walled cities; they constructed roads and bridges; their architecture,



Greek Etruscan.

true predecessor of the Roman, was unique and highly evolved. All the plain and good things of life were known to these people, and their civilization was rich in its luxury, its culture and art as well. In costumes, jewelry, the paraphernalia of war, in painting and statuary they were alike distinguished. Their mythology was very complex, much of the Roman being derived from it. Most of our knowledge of them is derived from the rich discoveries in their chambered tombs, scattered all over Italy from Rome to Bologna. There can be no doubt of a very high type of civilization attained

long before the Christian era. Roman history is merged in the obscurity of time, five or six hundred years later than this. The high antiquity of the Etruscan is therefore beyond question. But its highly evolved art and culture show that we have passed beyond the stage of European origins; to discuss it further would lead us to trench upon the field of classical rather than prehistoric archæology.

* A good recent *r/sumé* of Etruscan culture is given by Lefèvre, 1891 and 1896 a. Cf. "Etruscans" in our Bibliography.

V. The northwestern corner of Europe, including Scandinavia, Denmark, and the Baltic plain of Germany, throughout the prehistoric period has been characterized by backwardness of culture as compared with the rest of Europe. It was populated from the south, deriving a large part of such primitive civilization as it possessed from the south and the southeast as well.

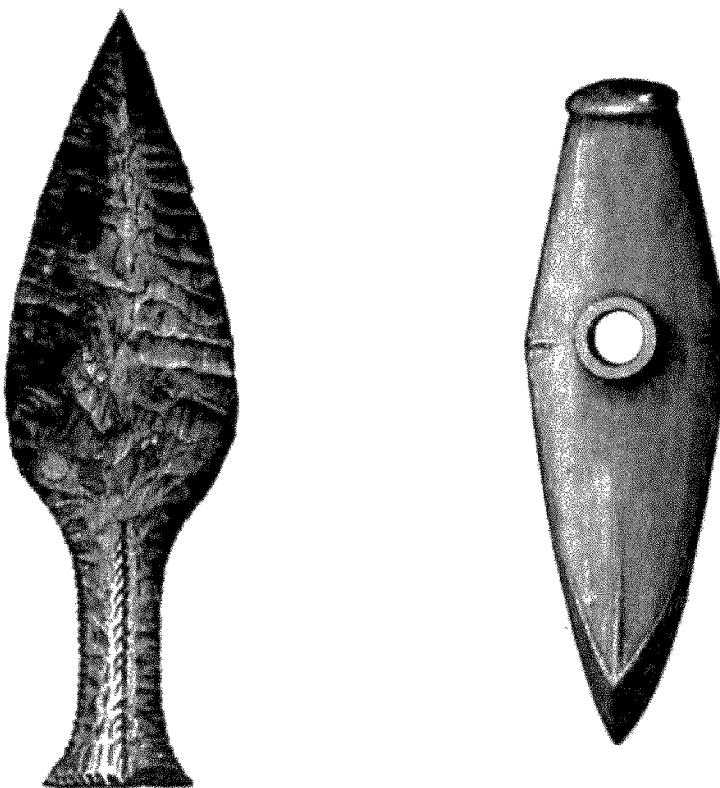
That this region was necessarily uninhabited during the Glacial epoch, long after the advent of man in southern Europe, is indubitable. It is proved by the extent of the glaciated area, which extends on the mainland as far south as Hamburg, Berlin, and Posen, and over the entire British Isles at the same time.* It was by the melting of this vast sheet of ice that those high level river terraces in France and Belgium were formed, in which the most ancient and primitive implements of human manufacture occur. In the area beneath this ice sheet no trace of human occupation until long after this time occurs. This fact of itself, of course, proves nothing; for glaciation would have obliterated all traces of anterior habitation or activity. As to the possibility of a tertiary population before the Glacial epoch, it presents too remote a contingency for us to consider, although we do not deny its possibility. It too far antedates prehistory, so to speak.

At the notable International Congress of Anthropology and Prehistoric Archæology at Stockholm in 1874 a landmark in these sciences was established by substantial agreement among the leading authorities from all over Europe upon the proposition now before us.† First of all, every one subscribed to the view that the palæolithic or oldest stone age was entirely unrepresented in Sweden. The earliest and simplest stone implements discovered in the southern part of that country betray a degree of skill and culture far above that so long prevalent in France and Germany. Stone is not only rubbed and

* Cf. maps and data in J. Geikie, 1894; Penck, 1884; and Niederle, 1893, p. 25.

† Bertrand, 1876 a and 1876 b, gives a full account of it. The best recent authorities upon Scandinavian culture are Sophus Mueller, 1897, and Montelius, 1895 b. Other works of reference are those of Worsaae, Nilsson, Hildebrand, Madsen and Rygh, titles being given in our supplementary Bibliography.

polished into shape, but the complicated art of boring holes in it has been learned. Norway also seems to be lacking in similar evidence of a human population in the very lowest stage of civilization. Stone implements anterior to the discovery of the art of rubbing or polishing are almost unknown. Only about Christiania have any finds at all been made. In Denmark some few very rude implements have been found. They are so scarce as to suggest that they are mere rejects



Flint Dagger. Scandinavia.
(After Montelius, '95 b.)

Stone Axe. Scandinavia.
(After Montelius, '95 b.)

or half-finished ones of a later type. The kitchen middens, or shell heaps of Jutland, for which the region is most notable, as described by Steenstrup, abound in stone implements. They all represent man in the neolithic age. Polished stones are as abundant as the rudely hammered ones are rare. From the absence of all such very early stone implements, and from the sudden appearance of others of a far more finished type, the possibility of a gradual evolution of culture about Scandinavia *in situ* is denied on all hands. The art of working stone has

surely been introduced from some more favoured region. The only place to look for the source of this culture is to the south.

Tardy in its human occupation and its stone culture, Scandinavia was still more backward, as compared with the rest of Europe, in its transition to the age of bronze. This is all the more remarkable in view of the rich store of raw materials on every hand. Nowhere else in Europe does the pure stone age seem to have been so unduly protracted. A necessary consequence of this was that stone-working reached a higher stage of evolution here than anywhere else in the world save in America. In other parts of Europe the discovery of metal-working, of course, immediately put an end to all progress in this direction. The ultimate degree of skill to which they attained is represented in the accompanying cuts. The first, a flint poniard, shows the possibilities, both in the line of form and finish, of manufacture by the chipping process. To equal this example one must look to the most skilful of the American Indians, as in Tennessee, where they were too remote from mines of native copper to make use of a ready substitute for stone. Our second implement is an axe hammer, made of diorite. To shape, sharpen, bore, and polish a piece of stone like this certainly required a long apprenticeship in the art.

Bronze culture, when it did at last appear in this remote part of Europe, came upon the scene suddenly and in full maturity. Whether this was as early as the eighth to the tenth century B. C., as Montelius (¹⁵⁵) avers, is disputed by many. All are nevertheless agreed that evidence is absolutely lacking that the art was of indigenous origin. From what part of the world this knowledge of bronze ultimately came, we leave an open question, as also whether it came with Phoenician traders * or direct from Greece as Worsaae affirms. It was certainly introduced into Sweden, making its way into Norway about the same time, directly from the peninsula of Jutland. Its first appearance is in a highly evolved state. Such crude attempts at manufacture as Chantre finds so long prevalent along the Rhone Valley, for example, are entirely absent.

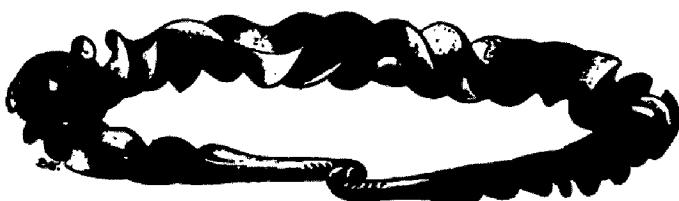
* Nilsson and Lindenschmidt, Wiberg, 1867, is good on this.

Both in form and ornamentation the hand of the master is apparent. This bronze age, like that of stone, lasted a very long time—far longer than anywhere else on the continent. Central Europe passed through three stages of metallic progress while Scandinavia was evolving two. Not until the second or third century of our era—not until the time of the Romans, it would appear—did iron begin to supplant bronze. History repeats itself. The excessive duration of the bronze age, as in the case of stone antecedently, led to the attainment of a remarkable skill. The two accompanying cuts are typical

of the best work of this time. In the one case, merely superficial ornament, especially the skilful use of the spiral; in the other, real beauty of form in the bracelet, are clearly apparent. Possessed of such skill in the working of bronze, it is small wonder that the need of a better metal was not felt. Only when fashioned into weapons of war does iron reveal its supremacy over bronze. This, of course, with the campaigns of historical times, brings us to the end of our chronicle.



Bronze Axe. Scandinavia. (After Montelius, '95 b.)



Bronze Armring. Vestermanland.
(After Montelius, '95 b.)

The prehistoric experience of metal-working in Scandinavia is typical of the other details of its cultural evolution. In its earliest epoch no trace of domestic animals is present. It is rather a remarkable fact that even the reindeer seems to have been unknown.^{*} What can Penka say to this in his positive affirmation that the original Aryans got up into Scandinavia, having followed the reindeer from central Europe

* Bertrand, 1876 b, p. 40.

north after the retreat of the ice sheet. The fact is, archæologically speaking from the evidence furnished by the kitchen middens, that if they ever did this "they left a fine country, where deer were plenty, to subsist upon shellfish on the foggy coasts of Denmark."* Quite early, however, even in the stone age, do evidences of domestic animals occur, to the dog being added the ox, horse, swine, and sheep.† Pottery in a rude form also follows. Finally, and in apparent coincidence with the bronze culture, comes a new custom of incineration. The dead are no longer buried, but burned. A profound modification of religious ideas is hereby implied. It seems to have been at about this time also that our Alpine racial type entered Scandinavia from Denmark; although, as we have already observed, it is yet far from certain that the new race was the active agent in introducing the new elements of culture. All that we know is that they both came from the south, and reached this remote region at about the same time.

That Aryan matters in Europe are certainly mixed would seem to be about the only warrantable conclusion to be drawn from our extended discussion in these chapters. They have an iconoclastic tone. Yet we would not leave the matter entirely in the air; nor would we agree with Mantegazza (⁸⁴) in his conclusion that "Ignoramus" sums up our entire knowledge of the subject. There is some comfort to be drawn even from this mass of conflicting opinions. Our final destructive aim has been achieved if we have emphasized the danger of correlating data drawn from several distinct sciences, whose only bond of unity is that they are all concerned with the same object—man. The positive contribution which we would seek to make is that the whole matter of European origins is by no means so simple as it has too often been made to appear. It is not in the least imperative that conclusions from all contributory sciences should be susceptible of interweaving into a simple scheme of common origins for all. The order of races, for example, need mean nothing as respects priority

* Reinach, 1892, pp. 72-78, for severe criticism of Penka's hypotheses.

† Montelius, 1895 b, p. 30.

of culture. Nor do the two sciences, philology and archæology, involve one another's conclusions so far as civilization is concerned. Language and industrial culture may have had very different sources; their migrations need stand in no relation to one another in the least. Each science is fully justified in its own deductions, but must be content to leave the results of others in peace. Such is the ultimate conclusion to which all the latest authority is tending. Only by a careful comparison of data from each sphere of investigation may we finally hope to combine them all in a composite whole, as many-sided and complex as the life and nature of man itself.